



THE CULTIVATOR

[THIRD]

TO IMPROVE THE SOIL AND THE MIND.

[SERIES.]

VOL. VIII.

ALBANY, N. Y., OCTOBER, 1860.

No. 10.

PUBLISHED BY LUTHER TUCKER & SON,
EDITORS AND PROPRIETORS, 335 BROADWAY, ALBANY, N. Y.

J. J. THOMAS, ASSOCIATE EDITOR, UNION SPRINGS, N. Y.

AGENTS IN NEW-YORK:

C. M. SAXTON, BARKER & CO. AG. Book Publishers, 25 Park Row.

THE CULTIVATOR has been published twenty-six years. A NEW SERIES was commenced in 1853, and the seven volumes for 1853, 4, 5, 6, 7, 8 and 9, can be furnished, bound and post-paid, at \$1.00 each.

TERMS—FIFTY CENTS A YEAR.—Ten copies of the CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Five Dollars.

"THE COUNTRY GENTLEMAN," a weekly Agricultural Journal of 16 quarto pages, making two vols. yearly of 416 pages, at \$2.00 per year, is issued by the same publishers.

THE MUCK MINES OF THE FARM.

No farmer need seek for a richer *placer*, who has a muck mine upon his premises. He has a triple advantage in the work of enriching his land, over those who have not been thus favored. For muck is not only a fertilizer of itself, but it possesses the power of enhancing the value of other manures—the process of fermentation by which they suffer some loss, giving, in admixture with muck, a greater value to three or four times the material which could otherwise be secured. As an illustrative proof, we might quote the statement of the late Elias Phinney, of Massachusetts, who by the mixture of twice the amount of dry muck with the manure from his stables, secured a fertilizer, which he assured the editor of the *N. E. Farmer*, was of higher value than the droppings alone, load for load. "His operations," says the *Farmer*, "were extensive, and conducted in a systematic manner, and the conclusions to which he arrived in relation to them, have been abundantly sustained by other experimentalists, and by careful analysis of scientific men." According to Prof. S. W. Johnson, "the excretion of any animal, mixed with muck is rendered more valuable, from the fact that the muck absorbs and saves the ammonia," a volatile gas which would otherwise be dissipated to a considerable extent by fermentation. The value of the muck compost is greater also, from being better proportioned to the wants of plants. Still, manure alone, if properly taken care of, is too rich; for, according to the same authority, "plants over-stimulated with ammonia, produce much foliage and few seeds."

Our present purpose, however, is to offer a few hints on "working the mines," or securing a supply of muck for future use. The best deposits are usually too full of water for digging in fall or winter, and can only be drawn upon during the dry weather of midsummer. The same season—the time between the early and later harvest—usually presents some leisure for the work. Besides, when comparatively dry, there is less weight to move, and the ma-

terial is in a better state for use. It will lie more lightly in the heaps, and thus gain greater exposure to the air while "seasoning." When muck is dug out and piled on dry land, the air and rains gradually dissipate the acid which most specimens contain, and which must be dispelled or neutralized before it is available nourishment for plants. It also needs drying to become available for use as an absorbent of the liquids of the stable—a use of much importance in increasing the stock of manure. Muck readily becoming friable under the action of the elements, is a valuable fertilizer for loamy and sandy soils alone. If it contains much acid, this should be neutralized by fermentation—most readily brought about by mixing with animal droppings, as spoken of above.

Speaking of the quantity of muck which may be used in a season, the *Homestead* remarks that it bears some proportion to the number of animals kept upon the farm, and puts it at from fifteen to twenty-five loads for each cow, ox, or horse, and ten loads to each yearling swine. At least half a load to every sheep, we think, may be spread over their yards, which should be kept littered with straw while occupied in the winter. Early in spring let the whole be drawn out, (mixing the strawy and mucky portions together while handling,) and placed in a heap, and it will prove very valuable for the fall wheat, or, indeed, any crop on the farm. A few loads should be placed where the wash and slops of the house can be poured over them; it will soon become valuable manure, and should be drawn away and replaced with a new supply.

When the muck beds are distant from the barn, and the material is wanted for application to lands near by, there is no need of carting the muck to the barn and back at a large expense. Get out the muck now, and heap it on the fields where needed. When the stock come to the stables in the fall, draw the manure at once to these fields, and as long as allowed by the frost, mix the two together, one load of manure to two of muck, and it will only require one turning, and few weeks of warm weather, to fit it for corn or other crops. Or it may be composted in the spring with lime, ashes, guano, bone dust or other alkaline or nitrogenous material, decomposing in a short time, and furnishing a manure of equal value to that from the barnyard itself.

The conceded value of muck for increasing the quantity and quality of available home manures, renders it worthy the attention of every farmer within whose reach it lies. Thousands of swamps are now accessible, and there are few places where muck, either from these frequent large deposits, or from the beds of sluggish streams, the margins of ponds, the hollows of wooded hills, and like situations, cannot be procured to any desirable extent by the

Jno L Tappan

enterprising farmer. Yet we are surprised, upon inquiry, to find so few who avail themselves of the resource, in comparison to those who might do so. But those who have once given it a fair trial, never cease to pursue the practice—it proves too profitable in wheat and corn, in meadow and orchard—in the improved character of every product of the farm, to be neglected by any who have ever tested its value. It is a mine of gold to every cultivator of the soil—giving golden grain—golden dairy products—golden fruit—gold in the pocket.

Top-dressing Meadows and Pastures.

We have repeatedly called the attention of our readers to the favorable results usually following the surface manuring of grass lands, and believing, as we do, that good crops of grass lie at the very foundation of good farming, we keep careful watch for facts which shall help carry the conviction to the minds of farmers in general. A few such are condensed below:

The last "Journal" of our State Ag. Society contains among other interesting matter, some notes of a "trip to Westchester," by Secretary JOHNSON. Near E. G. Faile's "the grass crop was light, owing to the severe drouth prevailing in that section of the State." But "Mr. Faile's grass land had been top-dressed, and his yield this year was larger than usual, averaging, we think, three tons to the acre, his meadow-fields showing a fine healthy, green aftermath," while those around were generally scorched by the sun. Col. J. adds: "Mr. F.'s practice is undoubtedly the true one, and every farmer in that region will consult his own best interest by enriching his meadow land by a thorough top-dressing of manure."

The Genesee Farmer for August has an account of a visit by the editor to the farm of Jos. Wright of Waterloo, Seneca county, and among other items mentions Mr. W.'s practice of composting his barn manure with swamp muck—"the compost, when well rotted, making an admirable dressing for grass—or indeed any other crop; but Mr. Wright values it especially for the former purpose." Mr. Harris saw a 28-acre field of timothy, (four years from seeding,) that was top-dressed with this compost the early part of last winter. The crop is remarkably even all over the field, and, he remarks "we never saw anything handsomer." Two and a half acres of compost-dressed timothy had been cut, and yielded seven large loads of hay that it was thought would weigh 25 cwt. each. This would be three and a half tons per acre." Four acres of top-dressed clover had produced eleven large loads of hay. On another 8-acre field of timothy, Mr. W. had applied 40 loads of raw muck per acre, with decided benefit, though not as great as where the muck was first composted with manure.

The same paper speaks of Jas. O. Sheldon's farm, near Geneva, N. Y. "Mr. S. is much in favor of top-dressing his grass lands. One field of timothy of 30 acres, was top-dressed with from ten to fifteen loads of rather strawey manure, the early part of March. The manure has all disappeared in the dense sward, and the crop of timothy is very fine." Mr. Sheldon has made some experiments in sowing salt on the land at the time of seeding to grass in the spring—and finds the effect quite marked. The Farmer says—"he sows ten quarts of timothy and three quarts of clover seed per acre. In a 30-acre field, seeded down about the 10th of May, 1859, fifteen acres received a bushel and a half of salt per acre, sown broadcast at the

time of seeding; and on this portion of the field the seeds took well, and the crop this year, is much larger on the salted than on the unsalted portion."

Speaking of manuring at the time of seeding, we have this year tested the advantage of several applications for that purpose. On a sandy loam field, where grass seed was almost a total failure last year, it has this year succeeded well—partly from being top-dressed with plaster, and somewhat from the more favorable season. Where we top-dressed with composted muck and barn manure the clover is large and thick, and the same is true of a small plot dressed with house ashes. On another plot sown with salt, we think the clover is more uniformly successful, though the growth is not large, than where no fertilizer, save plaster, was applied. The more clayey portion, however promises the best clover—but it may not stand as well the "heaving out" of next spring's trying weather.

APHIDES ON YOUNG TREES.

We tried a successful experiment on these insects, which had copiously infested the top leaves of several thousand young standard pear trees three or four feet high, and one year from the bud. Two or three pails of strong soap suds, the refuse of a common washing, were used for this purpose. One person held the pail while another carefully bent the top of the tree downward, and thrust it with its thong of aphides into the soap. One or two thousand trees were thus easily treated in an hour, and none were left alive, except a very few where the work was rather superficially performed.

Having recently had an inquiry on this subject, we give this as the answer. Water alone will not drown them when applied in this way; oil will kill them, and the tree also; while soap combines something of the acridity of the potash, the pore-closing quality of the oil, without either injuring the leaves or bark.

BAROMETERS FOR FARMERS.

Considerable is being said and written, "about these days," as to the utility of Barometers for agriculturists. As I am somewhat ignorant of their virtues, I wish to inquire if changes in the mercury do invariably foretell a change in the weather—in other words, does a falling of the mercury denote the approach of a storm, or may it not be only a coming change of wind or temperature of the atmosphere, not always accompanied as we know by a storm properly? I wish those who have used them for years, would give through the GENTLEMAN, some account of their practical utility before we are all called on to pay our \$5 or \$10 for something which possibly (not probably) will be useless. W. J. PETTEE. Salisbury, Ct.

We have used a barometer for many years, and although not infallible, is very useful and valuable. Its usefulness varies in different localities—in some places its indications are more certain than in others, owing to the different character of the weather, nature of winds, mode of approach of storms, &c. In summer, a considerable fall of the mercury has nearly always been followed by rain, but sometimes the rain and descent of the mercury are simultaneous—in winter by wind. During rainy weather, its rise has invariably preceded a cessation of the rain. In some instances, its indications have been striking. In one instance, the wind had changed from rainy to a clear quarter, and every weather-wise neighbor was sure the clouds would clear away and give a fine day; but the barometer said, "No such thing! it rains to-day." In other words the mercury was falling. And accordingly it continued showery all day. Again—the neighbors have said, "We

shall have rain in an hour"—clouds thickening, wind south, &c. But the barometer stood immovable; and no rain came, till some hours after it began slowly to sink. We think every large farmer should have a barometer—it will probably pay for itself during each season of hay-cutting and harvesting—in some localities it may not. The best way to understand its movements, is to watch it for one season. We prefer the single column of mercury, without the circular dial plate and index, the latter being less accurate, and not nearly so satisfactory. The cost is \$9 to \$12, for such a one as will answer the farmer's purpose.

DOMESTIC TOILS.

Kitchen toils and domestic cares are extremely oppressive on many excellent women, especially among farmers' wives, who are frequently worn down and bent under premature old age at middle life. They cannot be free from care and toil, neither is it desirable that they should be; but the excessive weight which some have to bear, calls for more effort towards relief. There are many who are compelled to rise at dawn, and commence a routine, which only closes late in the evening—and even then rest does not come, when the care of young children, and possibly of sick ones, precludes in a great measure the wholesome and refreshing repose of sleep. It requires a stout constitution for a woman to wash, iron, mend, scour, bake, milk, churn, sweep, cook three meals daily, as often wash dishes, and go through other routines for supplying daily food, besides the care of a family of young children, whose endless wants are a continued interruption to all other operations,—without soon being broken down by these ceaseless toils.

A very common course is this:—The mother labors incessantly, in order to give her daughters school education, and perhaps to render them "accomplished;" while they are learning, or playing the lady, she is struggling under a mountain of drudging, until she gets them "married off." They in turn, for the first time, are compelled to assume the same course of labor—the change sours and disheartens them, and the bloom and elasticity of youth have all disappeared before the first ten years have gone; while the greatly higher object of living, namely the continual cultivation and improvement of the mind, forever ceases.

Whatever unfeeling, selfish, and ill-bred men may say, one thing is proved by the history of the human race, and that is, the farther a people advance from the savage or barbarous state, the greater is the improvement in the physical and mental condition of woman. There are no exceptions. All civilized men will therefore seek assiduously for the means that shall relieve the condition of women, and restore them from the state of mere drudges for the benefit of the men, to a condition of high domestic usefulness and mental refinement. What are the means for accomplishing this desirable end—of relieving the housewife from tiresome, weary, ceaseless labor? We mention a few—simple, homespun, and practical.

1. Provide domestic conveniences. Let the wood-house be level with and adjoin the kitchen, and be always supplied with good fuel and dry kindling wood; let the well be provided with the best apparatus for drawing water easily—provide ample cisterns, and connect them by means of good pumps with the kitchen—procure the best cook-stove, washing machine, easy churn, butter worker, clothes frames, carpet sweeper—and if needed, the family sewing

machine should not be overlooked. We have known the time when at least one active domestic was required to perform the extra labor of the various operations of building fires of wet wood, working an awkward churn, washing on a rickety washboard, scrubbing the floor with a worn-out broom, tying the clothes line to a peach tree, horse-post, barn corner, and smoke-house, borrowing water at a neighbor's, driving the pigs out of the yard, making sour bread for want of good wood, making rancid butter for want of a good dairy, and deficiencies in smaller domestic appliances.

2. Let the man of the house and such of his assistants as occupy it, provide themselves with slippers, and then, instead of marching with dirty boots directly into the neatly kept rooms, place them in a proper outer closet and assume the slippers—and if the soiled working coat should also give place to a cleaner one, it would appear more like civilization.

3. In order to lessen the heavy work of providing meals extensively for workmen, erect cheap and neat cottages, so that laborers may board themselves, as we have elsewhere recommended.

4. Adopt a simpler fare. We have known men so fond of good eating, as to keep several members of the family occupied from dawn till dark in cooking fine dishes, baking or roasting costly meats, and manufacturing delicate pastry, with all the numerous appurtenances belonging to this system of gormandizing. In one case, the man who ordered these luxuries had to take a blue pill once a fortnight to set his machine straight, which was constantly deranged by high living.

5. Bring up girls to labor cheerfully with their own hands—to make themselves generally useful—to regard active employment as infinitely more honorable than to be nothing but simpering, giggling, coquettish rag babies. Then when they are compelled to take hold with both hands, the charge of a family will be natural and comparatively easy; and instead of being soured because they do not find in real life what they had read of in sentimental novels, they will find much happiness in two ways,—one, in overcoming difficulties,—and the other in conferring happiness on those around them in a hundred little ways.

PRUNING ORCHARDS.

Will you be good enough to give me some information about pruning apple and peach trees—the best time of year to prune, and whether to thin out or shorten in—and also the cherry tree? A. B. Wash. Co., Penn.

Very few orchards are properly pruned. If young trees are judiciously *thumb-pruned*, so as to keep an even and regular head, very little after pruning will ever be necessary. But when young trees have been neglected, the evils of dense tops, crossing and crooked limbs, and a bad shape, must be gradually removed by cutting away a portion each season, for several successive years. Observe carefully before cutting,—with a view to make an even symmetrical head, to avoid if possible large wounds, and to let the light in from the outside, and not to trim up below or inside, the latter being the common way in which orchards are distorted and ruined. Peach trees must be cut in carefully and evenly from the outside, so as to keep a moderately open and handsomely shaped head, of limited dimensions. Unpruned peach trees after a while have long naked branches, and little foliage—by cutting in, the tops remain neat in form, compact in foliage, and bear full and excellent crops. Summer is a good time for the work. The cherry needs but little pruning—only to keep the tree within proper bounds, and of good form.

Editorial Notes Abroad.

No. XXXV—An English Dairy Farmer.

[We defer until another opportunity the continuation of the subject of "Agricultural Education in Ireland" in the midst of which our last "Notes" were broken off—in order to present the following Memoranda of a Visit in August, 1859, at Burley Hall, the residence of Mr THOMAS HORSFALL, near Otley, Yorkshire, whose contributions and experiments upon various ways of cattle feeding, &c., have attracted much attention. It is proper to remark, in order to account for the fact that some of the statements made below have already found their way into the papers—that these Notes formed a part of Lectures prepared by the writer for the New Haven course last year, an abridged report of which has had some circulation among our contemporaries, although never as yet published in the columns of the Co. GENT.—Eds.]

Mr. Horsfall has not so extensive an establishment as I had prepared myself to anticipate, but I regarded the time expended there as employed quite as usefully, as any other equal number of hours during my whole absence. The farm includes not quite sixty acres along the bank of a pretty little stream, either the Wharfe itself, or flowing into it, I am not certain which. Forty-three acres, or fully three-fourths of the whole, are in grass. The stock upon the place, at one time and another during the season, had been as follows :

Heifers and bullocks,.....	21	Two tups and 62 ewes,.....	64
Milch cows,.....	20	Lambs,.....	106
Likewise four pigs, two horses, and a pony.			

Making a total of small cattle and large, numbering 218 head—a tolerably heavy stock for sixty acres to carry. The land not in grass was employed as follows :

Wheat, $2\frac{1}{2}$ acres.	Oats, $3\frac{1}{2}$ acres.
Kohl Rabi, one acre.	Mangolda and Swedes, $3\frac{1}{2}$ acres.
Beans, three acres—one acre of winter beans, and two of a long podded garden variety.	

The winter beans, sown in October, were then, Aug. 17, just harvested, and had turned out apparently a good crop. It is one of which Mr. H. is quite fond; it is out of the way sooner than spring beans, so that the ground may be more readily prepared for a succeeding crop of wheat. This is sown without manure, the land being already so rich that it is difficult to give the straw stiffness enough to stand up till harvest. On the wheat field of this year, ($2\frac{1}{2}$ acres,) 15 cwt. of salt were sown in the spring upon those parts where the grain was most liable to lodge; the amount of seed sown upon the whole was only two and a half bushels, and the yield had been two hundred stooks of sheaves—then not thrashed, so that I have no other data for estimating the product obtained. After the wheat a rape crop for spring feeding would be likely to follow, and then oats, perhaps followed by wheat again, and then roots or beans. This would be a rotation of six or seven years, but it is not adhered to with any particular care. Wheat which was to be used for seed, Mr. H. did not house as soon as the rest, in order to allow it to dry and mature more thoroughly.

The particular interest of the place centers more in its live stock and grass fields than in its crops, however, and of these we will begin with the sheep, so as to defer the cattle and dairy matters for our conclusion. Mr. H. generally pays in the vicinity of 45s. sterling, say \$11.25 per head for ewes in October, to the number of sixty or thereabouts. Fifty-nine of the number purchased in the autumn of 1858, had brought him the 106 lambs he had to dispose of in 1859. They come mostly from the north, and are probably a cross of the Cheviot male upon Leicester ewes. He made a bargain with the butcher for his lambs this year in one lot at 24s. (\$6 each) fatted, a few beginning to go off as early as May, when only four to six weeks old, and the purchaser being allowed in the

bargain to draw from the number according to his wants—the whole to be taken before the end of July. What were left on hand at the end of June were at that time weaned. The ewes themselves are fattened, and sold along during August, September, and October,—fetching from \$12 to \$12.50 per head; so that the sheep account shows, for not quite a year's keeping of each ewe, (1.) a profit of from 75 cents to \$1.25 in the difference between the price paid for her and the price received, (2.) the fleece sheared from her in the spring, which is quite an item—and (3.) the lambs which she has produced and reared—a return which it requires no argument and little arithmetic to show must be considerably beyond the labor of caring for her, and the cost of what she has eaten.

Turning now to the cattle, we find that Mr. Horsfall buys the bullocks he fattens in April or May, grazes them through the summer, finishes them up in the stables, and sells in November; milch kine being found to pay better for winter care. It is the custom, Mr. H. remarked, with the London dairymen to buy in fresh cows as fast as others run dry and are sold, or whenever they need to increase the quantity of milk for sale. It is his system, as I remember what he told me, to keep about twenty cows constantly in milk. He generally buys about the time the first or second calf comes in; but if he finds the right sort of animal, say at three, or still more frequently at four years old, he did not seem so particular as to the season of the year in which she came in his way; milking them for two or three years—the latter period only when the cow's extraordinarily good milking qualities seem to justify it. They go dry from two to three months in the year, and by a little skill in selection, they average about twenty quarts per day when fresh. Mr. H. appeared, like some of our best dairy farmers, to prefer a cross-breed to a pure; he said that what he always chose when possible, was a kind of cow half Short-Horn and half Highland Scots, of which sort, in that part of Yorkshire, there are generally some to be found. As an illustration of the value of such cows as he would select in that part of England, I may mention that the week previously he had purchased three head of these Yorkshire Short-Horns, for £45—say \$75 a piece.

These milking cows he keeps constantly in good order, and maintains that much of his success in milk-producing has been due to this fact—that it must indeed be ranked as one "*leading feature of his practice.*" Accordingly, when the cow runs dry in her sixth year, she has been gradually getting fatter and fatter for some time back, and a month's "finishing" in the stall is all that is necessary to make her the best of beef. He does not breed any to raise himself, but by this method, some farther particulars of which I am about to give, he accomplishes the double object, as one might almost say, of getting both the milkman's and the stall-feeder's profit out of the same animal.

As we go out now to look over the pasture and meadow lands, we shall obtain a little insight into Mr. Horsfall's out-door management, and then an examination of his stables will lead to that part of his in-door operations connected with feeding, while a subsequent glimpse of his dairy will enlighten us as to the final manipulation of what it is the business of the rest of the establishment to produce.

We saw fourteen acres of meadow, then, which carry about twenty cows and twenty-four sheep, from the time the grass is well up until the middle of October, with very little assistance from other sources. Another lot of twen-

ty acres, every yard and foot of which is such that the cattle are fond of it, has usually supported, Mr. Horsfall told me, a bullock and one and a half head of sheep with their lambs, to each acre. To these pastures the cattle and sheep are generally admitted about May 16th, previous to that time grazing upon the hay or meadow land, and thus allowing the pastures to have a good start,—the best possible security, Mr. H. thinks, against injury by subsequent drouth. The meadow is thus eaten close early in the season, but by the end of June will cut two and a half tons of hay per acre, and generally yields, also, a second crop and an aftermath. From this twelve acres of meadow I saw a fine stack, and I have not before referred, I think, to that peculiarity of English farming which every traveler notices at once—the stacking up of the grain and grass, so that these beautifully constructed and beautifully thatched evidences of plenty and skill, form a most prominent feature about every farmstead—a stack cut this season from the field referred to, measuring thirty-three feet in length, twenty in breadth, and fourteen in height, and supposed to contain at least thirty tons. Mr. H. estimated the weight of ordinary hay at sixteen stone (14 lbs. each, I suppose,) per cubic yard, or 224 lbs.; but his early cut hay he said, was exceedingly compact in the stack, so closely packed, indeed, that he had repeatedly found it by actual trial to weigh 28 stone per cubic yard, or 392 lbs. This is remarkably heavy. He finds great advantage, he thinks, in early cutting, never letting the grass get into full flower.

The best pasture is a deep alluvial loam, but the meadow, which is irrigated, is naturally a thin soil and a strong clay. The irrigation comes from a little brook into which the sewage of the village of Burley flows, and is simply performed by being admitted at the highest point, a gentle knoll, whence furrows having a very gradual descent, carry it over the whole, the water when turned on trickling out from these channels through the grass. It is allowed to run through the winter until March, when, as I have already mentioned, the meadow is grazed until May, and then another irrigation ensues to give a start to the hay crop, and after mowing a third flowing takes place.

I stated the number of animals kept per acre on the pastures, with the qualification of "some little assistance from other sources." This assistance only consists I think in a little cooked food for the milch cows, and in the fact that when the pasturage begins to be less hearty, say at just about the time of my visit in the middle of August, they are stabled at night, and receive a little grass in the stall. This grass is often obtained from the same pasture with a scythe, for, at intervals, where the droppings of the animals have laid, the herbage will not have been eaten off, and a man can soon cut enough of the rank growth thus produced to serve for the housed stock, and if not wanted for the cattle, it is cut just the same and given to the horses. In this way not only the whole growth of the field is completely economized, but the grass itself is kept in better growing order, as well as in better appearance. In hot weather Mr. H. is in the habit of stabling his animals in the day and letting them out at night. All the grass land is also subject to farther manurings, of which we shall speak in connection with the stables and their management.

Of the grasses Mr. Horsfall likes best the *poas* and the *festucas*, the former genus comprising a number of varieties, among which what is there called meadow grass (*poo pratensis*) is perhaps the best known, and the latter class

or *fescues* being generally regarded, I think, as peculiarly suitable for low lying grounds. For under grasses, as he calls them, and clovers, he don't care so much. His lands are all drained, the lines of pipe tile running eight yards apart, and from three to four feet deep, the latter depth being found preferable, and having been employed in the drains most recently put down.

Mr. Horsfall's simplest feeding stable was an inexpensive building, of which I had the curiosity to take the exact measurement, as he seemed to like the plan on which it was put up quite as well as any other, and as its cheapness, moreover, is such as to put it within the means of any American farmer. The inside length was forty-two feet four inches—outside width fourteen feet ten and a half inches. The back wall was of brick, seven feet three inches high, the end walls also of brick with doors. The front of the building toward which the roof sloped, was probably about six feet high; it was composed of six pairs of doors, so that this whole side could be thrown open if necessary. The roof was of slate and *thatched underneath*, a very simple and not uncommon English method, worthy of adoption here, of maintaining a more even temperature, by keeping out extremes of heat and cold—the spaces between the roof timbers being filled in with straw, held in place by light strips nailed across, or in some other similarly cheap and easy way. In speaking of slate roofs, I think it is Mr. Meechi who recommends whitewashing them; because, as he states, the rains of summer will not carry it off, and the sun's heat is then reflected, while the snow and frost of winter will at once remove it, and then what heat the sun gives will be absorbed.

A wing attached to this building contains feed and a well sheltered apartment for roots; while the water from the roof is collected in a tank, from which a tap may be added to carry it by one turn of a spigot into each stall. I have forgotten whether the last arrangement was already in operation, or whether it was spoken of as an improvement to be made. One improvement was suggested as worthy of attention in erecting such a stable, viz: The provision of slides in the doors for better ventilation, or what was thought perhaps preferable, the hanging of the doors in two parts, so that either top or bottom alone might be opened or shut at pleasure.

Coming now to the interior arrangement, we find that a little greater width would allow an alley way for feeding—which runs along the back wall, and toward which the heads of the animals stand—a little wider and more "handy"—its width now being only about thirty inches. The building accommodated eleven or twelve stalls—their width being three feet six inches, to three feet nine inches. The manger bottom is only two or three inches above the level of the floor. Its inside width at bottom is fourteen inches; the inside board is nine inches wide, sloping outwards, and the back of the manger one foot eleven inches high, also with a slight slope, so that its inside width at top is fifteen and a half inches. In front of the stall a timber runs three feet and eight inches high from the manger bottom—say four feet two inches outside height from the ground. This would leave an aperture of about twenty inches from the back of the manger to this piece of scantling—eight inches of which is filled by a board hung upon hinges to the latter, so that when feed is put in from the alley way it opens back for its admission, while the cattle cannot push it outwards so as to put their heads through.

The stall partitions are about five feet wide from the extreme front; the cattle are fastened by a chain about the

neck, attached to a ring sliding up and down upon a stanchion about a foot back from the manger in the side of the stall. The floor of the stall is worthy of particular description. A piece of cocoa nut matting three feet square occupies the upper end, having straw under it, and securely fastened down. Back of this there are grates opening into a tank beneath, not quite three feet deep, two feet eight inches wide, running the whole length of the stable. The grates are of the same width as the tank, each one three feet three inches long, fitting neatly together, and with the rest of the floor, and capable of removal one by one for any temporary purpose. The frame is made of three by three inch timber, with slats four inches wide, and one and a half inches thick, and two and a half inch spaces between the slats. The distance from the manger to the outer edge of these grates is seven feet eight inches.

Of the underground tank there are six extensions, answering as outlets, one at the end of the building, and the other five along the side, the outlets enabling a man to work at any part of the tank in removing the manure more conveniently than could otherwise be done, and to some extent entirely upon the outside—a cart backed up to where he is at work and no doors being open to chill the animals. There is a pump to take as much of the liquid as can thus be drawn off. No bedding beyond the mat is used for the cattle. The more solid parts of the manure are taken away in carts and sometimes mixed, especially if they are not to be immediately applied, with the scrapings from the adjacent public road or the cleanings of the ditches. But it is to the application of this substance to his grass lands, almost without stint, that Mr. H. owes their unflagging, or rather, I may truly say, their constantly increasing productiveness. A dozen good loads spread upon an acre just before a gentle shower, will be washed into the ground like a healing ointment, there being no straw or other coarse material in the way. The time for manuring the meadows is as soon after the mowing as the weather suits; for the pastures, during the winter. The liquid manure is often mixed with the rest for application in this mode; it is also pumped into barrels and put over the pasture in spots where the cattle do not appear to like the grass so well, or where it is coarse and wiry, or on spots a little bare; and three or four doses of this kind in winter or spring, are said to bring on the herbage wonderfully, and indeed seem to change its nature at once. If there is an extra supply of the liquid manure, it may be carried to the source from which the water used for irrigation is distributed, and poured in there to render it still more fruitful of good as it is diffused over the field through the diverging channels already described. In what I have just said about the tank, I omitted to mention that it contained a partition having interstices between the boards just so as to let the liquid part through into a little compartment with which the pump connects, and retain the more solid mass behind. Mr. Horsfall estimates the annual production of manure from cattle, if it is well preserved, as worth at least £5 per head.

Dr. Voelcker had then just published in the Royal Ag. Society's Journal an Essay on Liquid Manure, which, as I subsequently read it after visiting the Cirencester school, appeared to me eminently practical, sound in its general reasoning, and cautious in its conclusions. But Mr. Horsfall thought it calculated to impede rather than increase the use of liquid manure, because Dr. V. classes "soils containing a fair proportion of clay, especially stiff clay soils," among

those not benefitted by its application, thus running exactly in the teeth of the long continued and successful practice at Burley Hall. Dr. V. also advocates the dilution of the liquid, a thing that Mr. Horsfall never does—drawing his argument too exclusively as the latter thought, from the Flemish farmers on the sandy soils of Belgium. It is undoubtedly true that to use liquid manure to advantage upon stiff and retentive ground, the land must be well drained and in good order; and, of course, with these prerequisites, Mr. H. considered its application more effective there than anywhere else. He would not apply it in very hot weather, of course; preferring a murky if not absolutely a rainy day, and thought that any previous dilution would then be attended with evil instead of good results. It seems quite possible, however, that upon drier and lighter soils, or in a climate less moist, the reverse should be the case, as Dr. Voelcker argues.

For steaming the food the cattle get, Mr. Horsfall employs cans made of block tin holding three bushels each, which last in use about two years, and are portable and easily handled. His apparatus accommodates three such cans, which are filled three times a day for the twenty milch cows he keeps in winter—the mixture steamed being composed at the time of my visit in the following proportions, the quantity mentioned being that prepared for each cow's daily subsistence :

Rape cake,.....	5 lbs.	Malt combs,.....	2½ lbs.
Bran,.....	1½ "	Indian meal,.....	1 "
Straw cut to half-inch length,.....			10 to 12 lbs.

This mixture is just dampened—the degree of moisture it contains being a very important matter, and one which experience must determine—the food having a greater or less laxative effect, according as the water in it is increased or diminished. Cotton cake Mr. Horsfall has also employed to good advantage, and Indian meal he considers the most fattening food he can get, if it is properly mixed with other substances—indeed the composition of the feed given in winter, unless I am mistaken, would vary from the above by the substitution in it of three or four pounds of Indian corn instead of one. The steam is admitted to this mass for about an hour, and there is really something quite attractive in the odor it exhales—an effect which must be increased in a cold day by its warmth. Mr. Horsfall modifies his feeding materials of course with changes of price at different times. He has in past years used a great deal of bean meal to good advantage, but at present it is too dear for the purpose, and wheat bran and other substitutes are cheaper, as will be perceived from the fact that while wheat has heretofore averaged 56 shillings, and beans 34 shillings per quarter—that is, wheat at \$1.75, and beans at \$1.06 per bushel, the former was selling last year at \$1.25 per bushel, and the latter at \$1.56. The cooking of the feed he estimates to cost for fuel, only two pence (four cents) per cow per week, while with but little additional assistance in preparing the food and in milking, one man has the entire charge of the twenty cows. The advantage of feeding straw, in Mr. Horsfall's view, consists in the fact that you thus utilize as fattening agents those elements in it, which would escape by fermentation, if it were converted into an ordinary dung heap, while the very ones which alone render it of service as a fertilizer, are those of which the animal economy can make no use, and which are therefore thrown off by it, and collected in his tanks for the same destination they would otherwise have taken, but performing a double office when they reach it.

The price at which the milk is sold from this establishment is four cents a quart; but there not being sufficient demand to consume it all in this way, what is unsold is made into butter, perhaps to the amount of fifty pounds per week. There is an old well at the very door of the dairy room, employed for the sole purpose, as there are waterworks which supply all that is used, of cooling the cream in hot weather, before churning—a can containing it being let down twenty-six feet the night beforehand, where the temperature stands at about 46 degrees. The dairy room is purposely a small one, as the temperature there can thus be much more easily regulated; and upon maintaining it properly, much of his success in butter making is believed to depend. There are several tiers of shelving around the room, hollow, several inches deep, and lined with sheet lead. A current of water, cold in summer and hot in winter, is kept in constant circulation from one to another, and Mr. H. finds that he can thus keep the thermometers that hang at one or two different points in the apartment, at from fifty-two degrees to fifty-six degrees with great equability. The upper shelf about the room was covered with an inch or two deep of charcoal, which had been found to operate most successfully in the preservation of an atmosphere constantly sweet and pure, without such an admission of the exterior air for purposes of ventilation as would be necessary without this precaution. Unless I have forgotten, however, the sides of the room near the top were also provided with one or two outlets for the escape of any foul air that may rise from below.

I was particularly interested in what I saw and learned at Mr. Horsfall's, because it showed so plainly the practical nature of the experiments he has undertaken, and because the numerous details with which it furnished me, became of double value in connection with his writings, already to some extent known in this country, from abstracts prepared for the *COUNTRY GENTLEMAN* at the time of their appearance in the Royal Ag. Society's Journal, and from their partial republication in our State Society's Transactions. There is one point in these Experiments to which I wish to refer more particularly, as it came up for casual discussion not many months ago in the columns of this paper (Mar. 22—vol. xv, p. 192.)

Mr. Horsfall justly considered it of great importance to the practical farmer and dairyman that he should know more accurately the relative values of the different materials he feeds, in the vital economy of the animal consuming them. For the purpose of conducting investigations that should throw any real light upon the subject, he thought, moreover, that the investigation should go beyond his laboratory and analyses, to try the animal and its food upon the scales, and carefully reduce the results of the facts thus obtained and of the reasoning by which they were connected, into intelligible form for application to practical objects. To take the article of *wheat straw* for instance, he finds that chemistry can obtain out of a hundred pounds of it only half a pound of oil, while in the nutritive processes that go on in the stomach of the animal, the far larger quantity (32 lbs.) of sugar and starch it contains, seem to be also made available in the production of fat. In what degree they possess an efficacy of this kind had long been a matter of controversy, and its very truth he considered no more than "barely settled." He therefore applied himself to its farther elucidation by experimenting upon it himself and studying the experiments of others. By a course of careful experiment which I

have not room to describe at length, of which the subjects were six cows, it became plainly apparent that "the oil in their food was inadequate to the supply of the butter and fat" produced from them, some portion of which therefore must have been derived from the starch, sugar, &c. of their food.

Going back, then, to the oxygen, carbon and hydrogen which make up, in different proportions, starch and sugar, as well as fat,—calculating the amounts thrown off in different ways by the animal economy, consumed in the process of respiration, &c., together with what is retained in the form of increased weight, he was led irresistibly to the conclusion that in supplying this demand, the starch and sugar of the food occupy a rank equivalent to a certain smaller weight of oil, and he thought himself fully justified in assuming that the one, (the starch, sugar, &c.,) would go about five-ninths as far as an equal amount of the other, (the oil)—in other words, that the proportion of 90 to 50 expresses the ratio between the respective values of these constituents in the food. Adopting this proportion, he then constructed a table for the purposes of comparison between different feeding substances, computing the cost of the meat that would be obtained from 100 lbs. of each. To go back again to the straw, he puts it down as containing one-half of 1 per cent. of oil, and 32 per cent. of starch, sugar, &c.—both together equivalent to an aggregate, according to the above estimate, of 18½ lbs. of oil in 100 lbs. of straw. In conversation with Mr. Horsfall during my visit, he said, however, that subsequent experiments, conducted (I think) by Mr. LAWES, had led him to modify somewhat the foregoing computation, and to consider the ratio of *two to five* as expressing more nearly than that of 50 to 90, the approximate efficacy of starch, sugar, &c., as an equivalent for oil—an abatement upon his former estimate, explained by supposing that some oxygen combines in the process of digestion with the carbon of the food to form carbonic acid gas, and is thus thrown off, creating a loss not previously taken into the account. While this does not affect materially the results of the previous experiments, it should be placed on record and borne in mind in consulting them.

With one farther remark I shall conclude. Mr. Meehi, who had found straw as he cooked it with other materials, apparently of unexpected service, for its price, for feeding purposes,—immediately seized upon Mr. Horsfall's reasoning as both explaining his own experience and sustaining his advocacy of the more economical employment of their straw by English farmers. He mentioned in a paper publicly read, that he was getting 18 lbs. of oil out of every cwt. of straw that he fed, or something to that effect—a statement which, when put into this form *by him*, was at once discussed and disputed. Finally, in December last, Mr. Nesbit the chemist, came out with a total denial of the correctness of any such assumption as that on which Mr. M.'s statement was based, with regard to the equivalent in oil of "the carbon, oxygen and hydrogen in straw." This denial, although unsupported by any argument, and apparently founded on no experimental acquaintance with the subject in its practical bearings, nevertheless furnished several writers in Great Britain and in this country, with a new opportunity of decrying Mr. Meehi's pretensions to "practical experience," and of sneering at those who had been so gullible as to receive anything coming from him as "reliable." If the pains had been taken to go behind Mr. Meehi, and examine his authorities, the error, if error there was, would have been elsewhere located, or, very

possibly, a negative assertion, without farther explanation or reasoning, would not have been so readily pounced upon and brought into notice, without any reference to the laborious, careful, and I think I shall be fully justified in adding, the very reliable investigations which were thus abruptly contravened, and for which we have to thank Mr. Horsfall—of whose “practice” as well as “preaching,” I much regret that I cannot present a still more complete and satisfactory account.



DESIGN FOR A LABORER'S COTTAGE.

This is a small but complete cottage of its kind. It has a front entry as a protection from cold winds, and for proper seclusion; a small closet on the left of this entry; a bed-room and living-room, the latter with two closets; and a wood-house in the rear, which may be built with the house or added afterwards. A portion of this wood-house may be fitted up as a sort of summer kitchen, to which the cooking stove may be removed during dog-days. The cellar beneath is reached by a flight of stairs from the living-room, under the entry stairs. The bed-room on the principal floor may open into the entry, if desired; but it will be more comfortable in cold weather if immediately connected with the living room and receiving of its warmth. The stairs to the chamber, land under the highest part of the roof, consequently there is no danger of striking one's head against the rafters. There are two rooms and a spacious closet above.

There being no windows on the side of the entrance, it is intended that this side be mostly covered with prairie roses or other running plants, kept several inches or a foot from the outside boards, by means of a frame or lattice-work trellis, made for their support.

This cottage is nearly square, or 18 by 20 feet outside, affording an economical enclosure of space; and the roof, having considerable ascent, furnishes plenty of chamber room. The ceiling is 7½ feet high, and the eaves about 3 feet above it. It may be built with a cellar under the whole, and with a rough board wood-house for about three hundred dollars.

It should be observed that the window-hoods should not be made of inch boards as is sometimes done, which gives them a flimsy appearance, but of plank at least two inches thick, and better if three inches.

The foregoing is one of several Original Designs prepared for the coming Number of the ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS for 1861.

GOOD SHEEP.—Mr. Wm. VERNON of Seaghticke, has 18 pure superior woolled Cotswold ewes, which have produced this season 27 lambs. They were dropped late in March, and now average 105 pounds each.



[For the Cultivator and Country Gentleman.] MOUNTAIN SEEDLING GOOSEBERRY.

I enclose an outline of the Mountain Seedling, a variety which I received from a Shaker settlement in eastern New-York. This is quite distinct from the American Seedling of the Cincinnati gardens. I have had it bearing three



MOUNTAIN SEEDLING GOOSEBERRY.

years, and am highly pleased with it. The plant is of a robust habit, often growing five to six feet high: branches upright and strong; leaves deep glossy green, and very large; the berries grow in clusters of three or four, and will average nearly as large as the outline under ordinary treatment; color of berry, dull red; quality equal to Houghton. The plant is very productive, and never mildews. It is undoubtedly a native, of the same type as Houghton, and more valuable than that fine sort, on account of its fine size and the more vigorous and upright character of the plant. E. Y. TEAS. Richmond, Ind.

THE HARVEST RETURNS ABROAD.

The Agricultural Gazette (London) of the 18th of Aug. contains its annual Harvest Report. As to the Wheat crop, out of 140 reports received from as many correspondents in England and Scotland, no fewer than 93 declared the crop to be below an average; and if the chief wheat-growing districts be selected it will be found that the proportion of unfavorable returns is quite as large. The same journal of the 25th contains a supplementary report, upon which the following editorial comments are given:

The additional harvest returns in another page corroborate those which were published last week. Of 30 reports of the wheat crop in Scotland and England, 19 estimate it as under average. Of 33 reports of the barley crop, 23 declare it to be average, and seven put it as very good or over average. Of 32 reports of oats, four are under average, 22 are average, and six are over average. Both peas and beans in these supplementary returns are generally reported as being superior crops.

The weather which has befallen us since the date of these returns must, however, be remembered by any one who would derive from them his opinion of the present harvest. In several instances, as from Suffolk, Essex, Cambridgeshire, and elsewhere, we have had intimation of the serious injury done; and though a few only of our correspondents have sent to correct their reports, both of the probable harvest time and of the probable yield, yet everywhere we know the ripening of the

grain is being delayed, and both its quality and its quantity are being injured by the constant cold and wet.

This weather, too, is general; the Times reports it to be as mischievous in France, in Holland, in Holstein, and in Germany as it is in England. In districts earlier than our own the question is—how is the harvest to be got in if we are to have a continual alteration of rain and sunshine.

"The wheat in the districts to the south-east of Paris, where the crop has been gathered in, is more or less injured by the damp, and the new wheat offered for sale in those markets is unfit for millers' use. The wheat in the northern and western departments of France, where the harvest is being commenced, will be more or less injured should the weather not change for the better. Even in the south of France it has been found difficult to thresh out the corn. The rain penetrated the stacks, which were not made for such unseasonable weather, and the new wheat brought to market is unfit for storing. It will be long before the wheat now being reaped will be sufficiently dry. The accounts from Germany are not more satisfactory. It rains in Holland, it rains in Holstein, and the wheat harvest is retarded. Rye and barley have suffered. Accounts from Berlin state that the potato crop is diseased, and that the rye and barley on the ground are in danger of perishing."

In addition to the foregoing we have the *Journal d'Agriculture Pratique* (Paris, August 20) from which we translate for the COUNTRY GENTLEMAN M. BARRAL's leading paragraph:—"The agricultural fortnight," he remarks in effect, "may be announced in a general lamentation, making itself heard from North to South. Here they fear for the Vintage, there for the Harvest. Grapes threaten to remain green—at least those that are not eaten up with the oidium—in either case producing only a wine of pitiable quality. As to the grain, no one ventures to cut it. In Beauce," a fertile district forming parts of the departments of *Loir-et-Cher* and *Eure-et-Loir*, "three-quarters and a half are still standing as we write, and the abundant rains prevent their going rashly to work. Besides the crop has not come to maturity throughout the whole north, and they can only proceed to the harvest on condition of hurrying to put the sheaves in stooks protected by cap-sheaves to shed the rain" [*en moyettes recouvertes de chaperons.*]



THE FRENCH "MOYETTE."

This is a way of putting up the grain worth a passing description. While a workman holds a small sheaf on end, others bring more small ones, in quantity equivalent to six or seven of the ordinary size, and put them around the central one, so as to form a smooth cone with a large base, which is then bound with straw about two-thirds the way up, so that the wind may not derange it. Then a cap-sheaf of the ordinary size, bound near the bottom, is *inverted*, so to say, over the apex of the cone, by opening the heads of the straw for its admission and

spreading them smoothly around, so that the whole presents the appearance shown in the engraving, which we copy from *Le Bon Fermier*—where it is stated that grain may stand thus, to ripen, for from two to three weeks before carrying it in.

"This method of *moyettes* or *villottes*," M. Barral goes on to say, in the article from which we are quoting, "recommended first by de Vaux in 1822, then by de Dombasle, de Gasparin, and many other agriculturists, is gaining ground every day—especially in these seasons of bad weather. Thanks to the good counsels of science now more widely received, we have no longer to dread such disasters as history has sometimes recorded. Many old cultivators who compare the present season with the worst they have ever gone through before, are speaking of the rains of 1816, when everything was totally lost, and the grain rotted on the ground. Nothing like this, fortunately, is now to be apprehended."

• • •

[For the Country Gentleman and Cultivator.]

Dry Yeast---Bread and Biscuit.

In page 31 of the current vol. Co. Gent. are very plain directions for making dry yeast, and on page 79 are a few amendments to them. These directions meet the approval of my wife, who is an excellent bread baker; they are the same as those by which she makes her dry yeast. She puts a few of these cakes to soak in a half pint of warm water in the evening, letting them soak until the next evening. She then sets her rising by boiling and mashing fine two quarts of potatoes; to these she adds water sufficient for the rising, about milk warm, and a tablespoonful of salt; then stirs in her flour and yeast until a proper consistency; she then sets away to rise until morning; then she adds flour to the rising, kneads it well and sets it away to rise; after rising, she moulds it into loaves and sets it to rise a short time again, then bakes. During the summer she, instead of boiling potatoes, boils thick sour milk; she takes the whey which separates and sets her rising as above. When her yeast cakes are new she puts them to soak in the morning previous to setting her rising. Her mode of making light cake or biscuit is as follows: When her bread is ready to mould up she takes a large bowl full of the dough, a teacupful each of sugar and butter, grates in half a nutmeg, kneads them together, makes them into balls or loaves about an inch and a half in diameter, puts them in a tin, lets them rise, and bakes. It is surprising how little attention many farmer's wives pay to making light sweet bread, one of the most important parts of the meal, always having hard, heavy, sour bread, with butter to match, requiring a sharp appetite to make them go down.

J. W. L.

• • •

[For the Country Gentleman and Cultivator.]

Reci e for Elderberry Wine.

To 1 gallon of berries put 1 gallon of water—boil it until the berries burst—strain them, and to every gallon of this juice add 3 pounds of moist sugar, 1 ounce of ginger, "cloves and cinnamon," of these two last enough to suit the taste. Let it stay in the cask until March.

RUSTICUS.

MESSRS. LUTHER TUCKER & Son—In your last CULTIVATOR a request was made for a recipe to make good elderberry wine, and having one that has been tried for years, I will give it to you for the benefit of your readers.

Gather the elderberries when perfectly ripe, pick them off the stems and put them in an earthen vessel; to every quart of berries add one quart of cold water, and let them stand until they crack open. Then squeeze them through a flannel cloth. Then strain the wine through another flannel cloth, and boil it in a clean brass or copper kettle from one to two hours, and to every gallon and a half, add one tablespoonful each of ginger, cloves and allspice, put in a bag and put in the wine while boiling. Then empty it in an earthen vessel, and add to every gallon and a half 4 pounds of brown sugar. Then add to every gallon and a half from 2 to 3 tablespoonfuls of good hop yeast, and let it stand until it ferments and settles. Then bottle it up and set it away from six to eight months, and it will be ready for use, and you will pronounce it the best you ever tasted. It is excellent for medicinal use.

D. M. FOULKS.

[For the Country Gentleman and Cultivator.]

HOW TO DESTROY VERMIN ON STOCK.

MESSRS. EDITORS.—The inquiry of one of your correspondents in the COUNTRY GENTLEMAN, of how he shall rid his calves of lice, is one of considerable importance to both parties concerned—first to the animals in point of comfort, and also to the owner of them in the economy of it. All animals infested with lice, are in a state of continual irritation and discomfort, and as a general thing do not thrive and grow as they otherwise would, and this subtracts so much of the profits from the pockets of the owner. The motives of humanity to the animal, and economy to the owner, ought to induce every owner of domestic animals to keep them free from all species of vermin. It is well known that the vegetable and animal kingdoms are both infested with various kinds of parasites, which draw their nourishment from the object on which they are found, and also that these animals and vegetables are injured in proportion to the number of vermin found on them, or the amount of nutriment drawn from them. Whether this argument is sufficient to establish the theory that "it is natural for calves to have lice," or not, I shall not attempt to decide; but my belief is, that it is just as natural for children to have lice as it is for calves, and that there is no more need of having them in the one case than the other; and further, that no person can be justified in allowing any living being in their possession, to be infested with vermin any longer than they can effectually remove them.

It would seem that at the present day no one need be ignorant of remedies for killing lice, but from the numerous inquiries which are made from time to time, I think that the publishers of every agricultural paper would confer a great benefit on the farmers of the country, if they would annually at the commencement of winter, deliver an address to their readers on "vermin which infest domestic animals, and the effectual destruction of them."

In my intercourse with farmers for the past thirty years, I have heard of a multitude of ways to kill lice on cattle, and have tried a large number on my own cattle, but for some years past I have confined myself exclusively to one article for that purpose, and that article is *tobacco*, either in the form of *smoke* or *snuff*. My reasons for preferring it is, that it is easily applied, is safe in its application, and sure in its execution. From long experience, I know that tobacco smoke will kill any live louse, tick, or bed-bug that comes in contact with it, and it can be applied in all places with little trouble, either to man or beast.

To apply the smoke, I use what is called a *blow-pipe*, made of copper, about $3\frac{1}{2}$ inches long and 2 in diameter. One end of the pipe is made tight, the other is made in the form of a lid or cover, to take off. In the top of the lid a tube is inserted; this tube should be two inches long, made a little flaring from the lid, and large enough to receive the nose of a hand bellows. In the bottom of the pipe another hole should be made, and a tube two inches long inserted. This tube should be half an inch in diameter at its junction with the pipe, and taper to a point of not more than one-eighth of an inch at the other end. A thin piece of copper full of small holes is fitted to the inside of the pipe; this should be a little less in diameter than the pipe. This strainer is placed in the inside of the pipe at the bottom to prevent the tube being stopped with the tobacco, and should be loose, so that it can be taken out and cleaned occasionally. The lower end of the pipe and the strainer should be made a little oval, and when they are used should be placed with their concave sides together.

When I wish to use the pipe, I put into it as much tobacco as I wish to use, then put in a few coals of fire, put on the lid and insert the nose of the bellows in the lid and commence blowing moderately; as soon as the tobacco begins to burn the smoke will issue at the opposite end of the pipe in a rapid stream. The nose of the bellows should be wound with tow, or a rag, so that it will fit tight in the tube of the pipe. When I wish to smoke cattle or horses, I take them when their hair is dry, and put them in a stable, or some place out of the wind, and having the

pipe burning, place the little end in the hair, and continue to smoke and move the pipe until the whole animal has been smoked over. The smoke will not kill the eggs of lice, therefore the animal should be smoked two or three times, at intervals of several days between the operation.

Any cheap kind of tobacco will answer for this purpose, and one pipe full of tobacco will smoke four calves.

To smoke bed bugs, remove all the clothing from the bedsteads, and blow the smoke into all the joints, cracks, holes where the cords go, or any other place where a bug can get. In this way I have rid my premises of them, and a bug has not been seen or *felt* in my house for years.

In using snuff for lice, I have it dry, and rub it into the hair on the back, neck, brisket, and the inside of the thighs of the animal, these being the parts on which the lice are first and mostly found. If this is applied when they first get on the animal, one good snuffing will generally finish them. But whether I use smoke or snuff, I make it a practice to examine my stock often, and on the first appearance of lice on them, the remedy is applied, until a cure is effected. This rule ought to be *invariably* adopted by every one who has the care of domestic stock; for the reason that the longer it is neglected, the more suffering is experienced by the animal and loss to the owner. Many farmers in this vicinity have lately adopted the practice of feeding *sulphur* to their stock during the winter, as it is said that lice will not live on cattle, or ticks on sheep, that are fed with it, and the sulphur is recommended as being beneficial to the health of stock. The manner of feeding it is to mix it with the salt that is given to them. Some persons are in the habit of sprinkling dry ashes, or slackened lime, on the floors of the stables in which the cattle are tied; others put ashes on the cattle; but this is an unsafe way, for if the cattle get wet after the ashes are put on them, the lye will take the hair off, and in some cases the hide too. The first time that I heard ashes recommended for killing lice, I tried it on four calves. I put a small quantity on their backs, and rubbed it well into the hair. This was in the winter. Before spring the hair on which the ashes had been put would pull out by handfuls, as easy and as clean as though it had been scalded; and on the backs of three of them the hide came with the hair, in spots. On these places scars were formed, on which the hair never grew afterwards. Since then I have seen scars on the backs of other cattle, formed in the same way. There are many other remedies which are applied for the destruction of lice, which have the desired effect, if they are judiciously applied.

I am aware that the opinion is somewhat prevalent, that fat animals will not be infested with lice. This as a general rule may be the case; but it is not always so. I once killed a veal calf that was fat, that had more lice on it than any other calf that I ever owned; and I have frequently seen other fat cattle, both young and old, that had quite too many lice on them. I heard a farmer say the other day, that the best thing that he ever tried to keep lice off of his cattle, was to give them plenty of *Indian meal* to eat, and when he gave it to them they were never troubled with lice.

I have also heard the remark made, that cattle fed with oil meal would not have lice on them, and that sheep fed with it would not have ticks. Those who have had experience in feeding oil meal, will know whether this is the fact or not.

C. T. ALVORD.

Wilmington, Vt.

[For the Country Gentleman and Cultivator.]
Remedy for Garget or Bloody Milk.

Saltpetre (nitrate of potash,) given in doses of half an ounce every evening, or every other evening, according as the effect is visible on the animal. If it causes profuse salting, every other evening will be often enough to administer it. I have usually given it in a bran-mash, or any similar kind of food that the animal would take. Thrice I have completely cured the complaint in the course of ten days or a week.

RUSTIC.

[For the Country Gentleman and Cultivator.]
SUPERPHOSPHATE OF LIME.

In Co. GENT. of July 26th, E. E. W., of Concord, N. H., having, as he states, like a good many others, discovered that certain articles sold as superphosphates are very worthless affairs—a discovery which he might have made, without being at the expense of buying and trying certain “trashy mixtures,” by the help of the complete exposure of them made by Prof. S. W. Johnson, as reported in Co. GENT. of Nov. 3, 1859,—and having resolved to be no longer humbugged, but to prepare a genuine article for himself, asks for information about the process of making a superphosphate. As no one has as yet volunteered to give any such information, I am induced to submit the following directions, which, being obtained from a collation of several of the same kind given at different times in a journal of high character—*The North British Agriculturist*—may be accepted as entirely trustworthy and sufficient.

Superphosphate of lime then, may be prepared from several substances, such as ground bones, bone-ash, ground coprolites, phosphatic guano, &c., or from a mixture of any of these. The first requisite for obtaining a good superphosphate is to obtain *good materials*, whichever of the above you may employ. Having obtained good materials, place them in a heap on a hard floor, or still better, in a wooden or stone vessel. A cask, barrel, or hogshead sawed into two halves, will furnish something generally suitable. To a given weight of bone ash, ground bones, or whatever material you use, add about one-fourth of its weight of hot water, or, still better, of urine or of soakings from a manure heap, and mix thoroughly until the whole mass becomes wet or damp. Use more water or liquid manure if the materials will absorb it. Shovel the whole mass into a conical heap, if on a floor, and if in a tub or wooden vessel, put it in some similar form, and cover up with old bags, sods, or anything that will make a close covering. In a few days the temperature of the heap will be so high that the naked hand cannot be inserted in it. When the heat has cooled down somewhat, turn the mass over, add more water, urine, or barn liquid, and cover up as before. When the mass again becomes hot, add from one-fourth to one-third of the weight of the bone dust, or other material used, of sulphuric acid, taking pains, by shovelling or stirring with a wooden shovel or pole, to bring the acid into contact with every portion of the mass. Stir the whole well together, after adding the last of the acid, which it is well to pour into or upon the mass in several portions rather than all at once. Finally, form the mass into a heap, and cover with a coating of sawdust, charcoal dust, dry muck, or any similar material. After the heap has laid undisturbed for several weeks in a dry place, it will have become mellow and dry enough for application, or if not quite dry can be made so by adding a little of any of the materials above recommended for covering the heap.

As the directions now given are probably more complete and embrace more minute details than any other which have ever been put upon record on the pages of the Co. GENT., and as they differ also from some which have been given to inquirers in other agricultural journals, it may be well to accompany them with a few explanatory remarks as to a few of the series of steps in the process.

First, then, it may be remarked that the wetting of the materials—bone dust, bone ash, or whatever they may be—with water or manurial liquid, is thought to be much preferable to the method usually recommended and followed, namely, diluting the acid with the water or liquid and adding both at once to the mass. Being softened by the liquid and by the heat of the fermentation which is set up, the materials are more readily acted upon by the acid when it is added. Then, too, the acid is more sure of being distributed pretty equally throughout the whole mass, and of acting upon the materials, as sulphuric acid has such a strong affinity for water that it rushes, as it were, into the pores of the bones in search of the liquid with which they have been saturated. The process of preparing bone dust for plant food is, indeed, by this satura-

ting of it with liquid and partially fermenting it, half or nearly half way completed before the acid is added; so much so at least, that some who use bone manure largely carry the process of preparation no farther.

Whether the process of preparing bone-dust, &c., is that of fermentation only, as just noticed, or that of making a superphosphate, it should be commenced several weeks before the prepared article is wanted. That much time is necessary to carry the process to maturity, and to allow the mass to become dry enough for use, especially in the cases where acid has been used.

If a ton of bones were treated with the quantities of water and of acid above named, there would be as the result a ton and a half of superphosphate, which need not cost more than \$45 or \$50, or at the rate of \$30 per ton for a genuine article.

Lastly, those who wish to experiment for themselves should use much care and caution in handling the acid, as it is sure to eat holes in the clothing if any drops of it should come in contact therewith.

A. R. A.

• • •
A HINT FOR DAIRYMEN.

We often meet with notices of good cows, and a large dairy composed of such would prove highly profitable, but too often a few poor animals throw the balance on the wrong side. For instance, a farmer in Massachusetts, keeping ten cows, found they averaged 1600 quarts to the cow, but the five best averaged 2000 quarts, leaving 1200 quarts to each of the five poorer ones. The best cows gave a profit of \$18 each—the poorer ones were kept at a loss of \$14 each, thus destroying nearly the whole profit of the dairy. No man can afford to keep a poor cow at the expense of the better ones—he should rather fatten for beef, or give away, even, than to pursue such a course of dairying. Let every cow's value be tested, and those that do not come up to the point of profit should go to the shambles.

• • •
AN EXCELLENT CAKE.

A housekeeper, very successful in delicate dishes, has furnished for the COUNTRY GENTLEMAN the following mode of making an excellent cake: Take one cup of butter and three of sugar, well rubbed together; then take five eggs which have been beaten very light, and stir them by successive portions into the above mixture, adding also four cups of flour and a cup of sweet milk. Add nutmeg and a wine glass of rose-water; and also add a teaspoon of solution of cream of tartar, and half a teaspoon of solution of soda. Baking about fifteen minutes in a moderately hot oven will be sufficient.

• • •
CHICKEN PIE.

From the same source, we have been furnished the following:—Take a pair of good young chickens, cut them in small pieces, adding a proper quantity of pepper and salt and small strips of salt pork, and put the whole into a saucepan and cover with water. Boil for half an hour, add flour and butter to thicken the gravy. Provide a large dish for baking it, served with paste; put the whole into the dish and cover again with a good rich paste, and bake the pie half an hour. It is best while fresh from the fire.

• • •
[For the Country Gentleman and Cultivator.]
Recipe for Making Elderberry Wine.

At the request of A. B. R., I give my plan of making Elderberry wine, of seven years experience. Gather the berries when fully ripe, bruise them fine, then strain them through a cloth; to one gallon of juice add two gallons of water. To each gallon add three pounds of maple or other brown sugar; mix well together. Then scald and skim. When nearly cold add about one gill of good yeast to a gallon. Let it stand two or three weeks in an open vessel—in stone jars, if convenient—till fermentation ceases. Then bung it up, or bottle it, as you please; age improves it.

GEO. CARGILL.

THE CROPS IN GREAT BRITAIN.

That there is something above and beyond Human Skill, in the ordering of those events which are constantly going on around us—whatever our occupation or purposes, and however well, as Human foresight goes, may be planned their development and results—is a truth of which the Farmer seldom needs to be reminded. He is already too apt, by far, to throw the responsibility of his mistakes upon the short comings of Nature—mindless of that general rule to which she furnishes so seldom an exception, that Providence is sure to help those who help themselves.

Such an exception is occasionally seen, however, as we began by remarking. Let the Farmer provide for all contingencies as carefully, and husband his resources as judiciously as he may—there will now and then come a season in which the hand of the most diligent maketh *not* rich, just as there will also come others when even the sluggard's granary is more than filled. If the latter appears to be nearly the case in many parts of this country, the present year, the gloom of the former threatens our brethren in Great Britain more and more seriously as the days and weeks go by; each arrival of new intelligence from across the Ocean, brings with it less of hope, and increases the probability that our harvests, far too large as they are for our own consumption, will not be unwelcome there, or unimportant to the welfare, and it may be to the continued existence, of the thousands who crowd the cities both in England and upon the Continent. It was the just remark of ARTHUR YOUNG half a century ago, that English farmers have learned "how to turn their climate to the best account;" but no drainage could carry off the waters that have been falling there through the present summer, no fertilizer stiffen the growing grain against its pelting storms, no artificial appliances pierce upward through the clouds and open a channel for those rays of light and heat, without the genial influence of which man can only sow the seed, and the seed can only germinate in vain.

The Summer of 1859, and in many of the English Counties, the two also which preceded it, were unusually dry. Streams and springs, represented as never before known to fail, were running low, or already exhausted, and still a fair return had been made to reward the exertions of the British Farmer. Now it seems almost as if the sky had only been accumulating its stores of moisture to shed them in 1860 in one continuous series of overwhelming Rains; "in place of the ready bountiful crop," says the Mark Lane Express, there lies

a dank, tangled mass of what might be coarse, uncared for, reedy herbage—laid everywhere so flat, so hopelessly beaten down by the wind and the rain, that if it be corn in ear, it must surely rot or mildew as it lies, never to rise again to welcome the too tardy smile of the long-tarrying sun! And still the rain comes mercilessly down, only to flatten it yet more closely into the much sodden earth; while your neighbor bids you mark the hay that he knows has been out for three weeks or more, and that can now never be worth carting at all, save it be into the dung-yard. The short-horns turn their backs moodily to the driving rain; and the farmer on his shivering pony, with his coat collar turned up, holds an umbrella over his head with one hand, as he opens the gate with the other, for a score or two of hapless looking lambs. What a thorough air of despondency there is about the whole group, and how plainly the picture, in all its sad uniform association, speaks of that "hope deferred" which "maketh the heart sick!"

Although some of the Crop Reports in that Journal, from correspondents in various Counties, are of a little more cheerful cast, the editors remark that it is "hoping against hope" for them to draw conclusions on the whole different from their own impressions and experience, of which the above extract forms a sample. The Irish Ag. Review—*four days later*, (Aug. 17,) the latest of our Foreign Journals now at hand—has the following paragraph which we copy at length, and which must conclude our Notes at this time, only preceding it by the remark that if the prospect of a market for our superabundant products cannot but promise "easier times" here, and through the Great West where several seasons past have been anything but remunerative, we cannot but bear in mind with sympathy the blow that is falling elsewhere—a blow that must be felt all the more seriously by those whose heavier capi-

tal will thus be rendered wholly unproductive—who will have expended just as liberally for costly fertilizers, and to whom the Rent Day will come at the appointed time, just as relentlessly, whether the crop be large or small!

Since 1847 the prospects of the country, in relation to the harvest, have not been gloomier. The sunless summer is being succeeded by a wet autumn. From England and the north of France, from Germany, Denmark, and Sweden, reports come of inclement weather, with heavy rains, so that spring corn is being housed in bad condition, whilst the other crops are suffering and kept backward very much. Last night the rain descended in torrents, not only here but for many miles round the city. A considerable business in wheat to-day has been the result of this flood of waters from the unsettled elements, but some holders decline meantime to offer. We call the advance to-day over Tuesday's rates from 1s. to 2s. per barrel on foreign wheat. From intelligence by the wires from London, we learn that a large business is being transacted in rice at extreme rates, which have not transpired. This is a sure sign that there is much alarm in the metropolis as to the grain crops in England. The accounts from North Britain are more favorable; no complaints of oats, barley or beans, and very slight and partial as regards wheat. Turnips and potatoes are sound and abundant, and one intelligent correspondent expects the stack yards in Scotland to be nearly twice the size of last year's. With such prospects and the immense supplies of wheat and flour imported by the New York and Montreal firms into the Clyde at present, we need not be surprised to learn our Glasgow friends are shipping to Ireland and Ireland this week. Amidst the gloom and darkness of these days, it is cheering to be informed that the crops of the United States and Canada are unusually abundant, as also in the south of France and north of Spain. From Santander, the principal shipping port of the latter, we may expect a good deal of flour direct into Dublin, and that ere long.

—Since the above was written, we have the Mark Lane Express of the 20th ult., the Crop Reports in which do not differ materially from the foregoing.

DEEPENING THE SOIL.

Our meditations this morning have had for their subject the oft-heard exhortation to the farmer, to "Deepen the Soil." Taking this for our text, we will give the reader "a homily" thereon—considering only the one side of the matter—the soils which are benefitted by cultivation of this character.

I. *The Benefits of Deepening the Soil.*—A modern writer remarks, and well remarks, that "a deep soil is better than a shallow one, because it furnishes a more extensive feeding ground for the roots of cultivated crops. The elements of nutrition, which the plant finds in the soil, are not all upon the surface. Many of them are washed down by the rains into the subsoil, and some are found in the decomposing rocks themselves. These, the plants, by a sort of instinct, search out and find, as well in the depth of the earth as at its surface, if no obstacle opposes."

II. *The Preliminaries to Deepening the Soil.*

1. It is useless to deepen the soil by culture farther than we first lower "the line of standing water"—the line where water ceases to drain or filtrate away but passes off, if it pass off at all, by the slow process of evaporation. It matters little what the soil is below this line, because, as the same writer's remark will illustrate, "no root, except those of aquatic plants, will grow in stagnant water. Every one who has attempted to grow deep-rooted vegetables upon half-drained swamp land, has observed the utter impossibility of inducing them to extend downward their usual length. Parsnips and carrots, on such land, frequently grow large at the top, but divide into numerous small fibres just below the surface and spread in all directions."

2. We need deepen the soil no lower than it is furnished with food for vegetable growth, either naturally or by application of fertilizing matters from other sources. Most soils only need loosening and deepening by culture so as to allow aerating influences to act, to become able to furnish nutriment to the roots of plants. But we cannot dwell on this question here.

III. *The Methods of Deepening the Soil. How can the work be accomplished?*

1. We may deepen the soil by thoroughly underdrain-

ing it. With no further working, save the operation of continued drainage, it will in time become deep and mellow. It does this from three causes: *First*, the drains allow the surplus water to filter rapidly away *through the soil*, instead of remaining a long time just below the surface, hardening, and in a manner, puddling the soil. *Second*, if the soil is clayey, drying it by drainage instead of evaporation, causes it to shrink and crack, thus tending to its deeper pulverization. And *third*, into the cracks thus formed, surface mold is washed, which not only keeps the clay from again uniting, but invites the roots of plant to follow the vegetable food thus supplied, thus increasing the pulverization until, in the course of time, it becomes equal to that of the drainage itself.

2. A more rapid method of deepening the soil is by the use of the subsoil plow, or by deep culture with any implement adapted to the purpose. After lowering the line of standing water, we may break up the hard subsoil at once; we shall find it to change its character rapidly as it becomes penetrable to the air—very soon instead of being shunned by the roots of cultivated plants it will be sought by them, and they will show by the larger growth above ground that there is a large and healthy growth of roots below. We cannot, we should remember, have the one without the other.

3. The soil may be deepened by a gradual increase in the depth of plowing given in the usual course of preparation for crops. If we have a field which has never been cultivated beyond five inches deep, we may very safely and profitably plow it six inches for the next crop, and go an inch deeper each time for several succeeding crops. There is no difficulty in turning a furrow nine or ten inches deep with our usual teams and implements, after the soil has been thoroughly broken up to that depth, and there few if any farm crops but will fill with roots a fertile soil are one foot in depth. It may require more manure to enrich such a soil, but in the same proportion it will be more productive than a shallower soil, and will continue much longer to give profitable returns without additional manure.

THE HALLENBECK PLUM.

In our last number we acknowledged the receipt of samples of this plum from Mr. HENRY HALLENBECK of East Greenbush, N. Y. In the absence of our Horticultural Editor, we sent some of them to CHARLES DOWNING, Esq., who has favored us with the following description:

NEWBURGH, Sept. 3, 1860.

LUTHER TUCKER & SON—Your favor of 30th, with Hallenbeck Plums, came safely to hand, for which I am obliged. The stems were wanting, and the bloom mostly rubbed off, so that I had to guess at those portions. I have it growing, but it has not yet fruited. I consider it a "very good" plum, but not "best." Its value depends much upon its bearing qualities, time of ripening, and whether much liable to rot on the tree.

DESCRIPTION.—Branches smooth or slightly downy; tree vigorous with straight upright shoots.

Fruit large, roundish oval, one side often enlarged. Suture broad and shallow, ending in a depressed apex. Skin deep reddish purple, sprinkled with numerous brown dots and covered with a blue bloom. Stalk [short, less than half an inch] in a pretty large cavity. Flesh greenish yellow, juicy, sugary, with a brisk flavor—quality "very good"—adheres closely to the pit, which is roundish oval. Ripe last of any.

CHAS. DOWNING.

We shall be much obliged if Mr. Hallenbeck, on whose farm this plum originated, will favor us with its history, bearing qualities, &c.

[For the Country Gentleman and Cultivator.] The Apple Tree Borer.

EDS. CULT. AND CO. GENT.—As much has been said and done of late years about destroying the borer, which has proved so troublesome and destructive to young apple trees, I thought I would communicate to you my experience and successful treatment in relation to the same. Three or four years since I grafted a thrifty young sprout from an old apple tree stump with fall pippins; the graft was growing finely, when one day I noticed the borer was making sad work on the tree, from the ground upwards a foot or more. I had read about applying coal from coal pit bottoms around the roots of trees as good, and digging out the borer and stopping up the holes with gum shellac, &c. I accordingly applied coal braize [the fine charcoal from coal pit bottoms] around the root of the tree, dug out all the borers I could find, cut away the dead bark, and applied a thick coat of tar on the tree where the bark had been removed, and washed the tree with a strong lye from wood ashes and lime. The borer has left the tree, and it looks well and promising. I applied another coat of tar this last spring where the bark had been destroyed. I think tar will prove useful in driving away the borer from young trees. JOHN R. BLAIR, Kent, Ct.

[For the Country Gentleman and Cultivator.] Improvement in Feeding-Boxes for Sheep.

The old fashioned box for feeding sheep with hay, formed with two boards on a side—one a short distance above the other to admit the sheep's head—is a most useful thing in thawing, muddy times; though at others its use may be considered doubtful. If they could be made so as to be snugly packed away under shelter without much trouble, they would last much longer, and farmers perhaps would be more likely to have them. This may be done by making mortices in the posts to receive the end pieces, instead of nailing them on. The end pieces can be held in their places by pins, fitted loosely so as to be taken out easily, which will hold the box together. The side pieces of course are nailed to the post. When the box will not be used, the end pieces can be taken out, the pins slipped in their places, and the whole thing packed away where it will not be destroyed by being racked about, or exposed to the weather.

J. L. B.

FINING WINE.

MESSRS. TUCKER—A very long experience in the wine trade enables me to say to those of your readers who are making wines of any sort, that the whites of eggs are superior to any other fining. They should be entirely separated from the yolk—beat only so as to separate them, and not to the frothy condition prepared for cake-making. Three or four whites to a quarter cask, adding the shells pulverized fine, and a tablespoonful of fine salt; mix these well together in a gallon or more of the wine, pour this into the cask, and see that your measure holds back none of the fining; then give it a thorough stirring from the bottom with a stout stick put in at the bunghole. If you have more shells, it will be beneficial to use them, especially if the juice appears to partake of strong vinous acid. The eggs should be fresh, and if the first fining fails give it a second one, but do not stir from the bottom, or let your stirrer go more than half the depth of the cask; the bung should be left loose, a faucet put in the head of the cask, and after a while by a sudden turn of the faucet, a little of the lees drawn off for a few times, and at intervals of some days, until it appears bright in a glass. If the process of fining is very tardy, a small quantity of brandy poured gently in at the bung, and stirred on the surface of the juice, sometimes aids the precipitation of lees.

E.

Elder for Striped Bugs.

I saw a notice in the COUNTRY GENTLEMAN of placing the common elder upon vines to keep off the striped bug. Ours were very thrifty, and in two days after the bugs made their appearance, the vines were completely covered and eaten. I then placed on some elder, and the next day they were all gone.

MARIA BROWN.

CURING SOWN CORN FODDER.

MESSRS. EDITORS—I wish to beg some information through your valuable columns in relation to a piece of corn sown broadcast—which is the proper manner of curing it, cutting and bundling the same as field corn, or cutting and laying flat in the same manner as hay. Would it be advisable to put on the same land winter wheat after removing the corn in case it was taken off by the 4th or 5th of September? I have been a constant reader of the COUNTRY GENTLEMAN, and had it in our family for the last three years, and found it of great interest. G. A. S.

Corn fodder, raised by sowing the seed broadcast at the rate of four bushels per acre, or much better if in furrows or drills at the rate of two and a half bushels per acre, gives a much finer and softer stalk than common fodder. It will be all eaten by cattle, but at the same time it packs more solidly in the stack, and is in greater danger of heating and spoiling by fermentation. We have known whole stacks to become completely spoiled, even after the fodder had remained some weeks in the shock, and was apparently quite dry. The stacks must be small, with three rails set upright in the middle so as to leave an opening for the escape of heat; or better, if spread on poles in the loft of a shed. It may be stacked better, handled better, and it will dry better, if bound in bundle; but will do very well if not bound, but raked with a horse rake and pitched with a horse fork. If for binding, the corn grown in drills may be cut with a common scythe so as to fall in even swaths; if for the horse-rake, it may be cut with a mowing machine.

It is a good crop to precede wheat, if it has been sown early enough in spring to be cut by the end of summer; for as it bears no corn, it does not exhaust the soil, but leaves more in the soil in the form of roots, than it carries off.

MAHALEB STOCKS.

MESSRS. EDITORS—As you are supposed to know everything, I wish to ask five questions about the Mahaleb—a stock used for budding the cherry upon. Does it make a dwarf tree, or will they grow to be as large as those budded upon a Mazzard stock? (1) Are the stocks obtained from seed? (2) Where can the seed be obtained? (3) When to be planted? (4) Is the fruit as good as when budded upon the Mazzard? (5) Please answer through the CULTIVATOR and oblige Jos. E. PHELPS. Mass.

1. The tree grows rapidly at first, but does not attain the size of those worked on Mazzard stocks. 2. The Mahaleb is raised from seed. 3. Some nurserymen have begun to raise their own seed in this country, but we do not know of any in market. 4. They may be planted in autumn or early spring, as other cherry seed, having been gathered and treated in the same way.

PLUMS AND GAGES.

What is the distinguishing difference between a plum and gage? is the gage round and plum long? J. W. L.

All gages are plums, but there are some plums which are not gages. The term gage, originally from the name of the man who introduced the Queen Claude into a part of England where it was unknown, is generally understood to apply to plums of moderate size and rather rich quality, varying, however, in form and color. The Green gage is round, the Imperial gage is oval. The former is green, the Yellow gage yellow, the Purple gage violet, &c. But the term is never applied to very large, or very coarse plums, nor to that peculiar class known as *prunes*.

The same or a more obscure meaning attaches to the

term *pippin* among apples, the Fall pippin being very large, the Golden pippin very small; the Newtown pippin is green, the Ribston red, the Downton yellow, &c.; the Sugar-loaf is oblong, the Michael Henry conical, the Vandervere pippin flat; the Blenheim pippin sweet, the Ribston sour, &c., the term, in fact, applying to all apples of whatever size, form, color or quality.

Fruit in the Shade—Balling Trees.

EDS. CO. GENT.—Are the sun's rays absolutely necessary to ripen fruit? I have a spot of ground so shaded that at this season not more than four hours of sunshine are upon it. Will you or your readers say whether grapes, pears or apples will ripen in such a place?

Will you also please explain the process of “balling” a tree for winter transplanting? H. New-York.

The sun's rays are not absolutely essential to the ripening of fruit, as is proved by the growth and maturity of specimens on the shaded side of large dense trees. If the shaded trees are fully open to the northern sky, so that they will receive a full share of light from sky and clouds, they will probably succeed pretty well. Apples, grapes and pears will do better in such a place than peaches. As a general rule, if the *leaves*, which furnish the food to the growing and ripening fruit are fully exposed to light and air, the fruit, although itself in the shade, will become fully perfected.

The usual practice in removing a tree with a ball of earth, is to dig a trench about the tree in autumn, fill the trench partly with leaves, to protect its bottom from the frost, and then, when the earth within the trench is frozen solid, to lift the tree and remove it on a sled to its place of destination, where a hole of corresponding size has also been cut for it in autumn. If of considerable size, we should prefer cutting a narrow trench a year previously, so as to cut off all the long roots, that the tree might send out a new supply of shorter fibres. In this way it would sustain less check in transplanting.

[For the Country Gentleman and Cultivator.]

REMEDY FOR BED BUGS.

“A highly respectable lady who has especial abhorrence” of bed-bugs, has our sympathy, and is welcome to our plan, which has not only kept them from the beds, but banished them from the house within the last month.

Take a cup one-third full of tar—put in candlewick, (say about four feet in length to each bed,)—when properly saturated, wind two or three times around each foot of the bedstead in the smallest part, or on the castor just above the roller; tie loosely, so that it will retain the tar. Cleanse the bed thoroughly several times during the first week. Apply the tar as often as necessary to keep the wick properly saturated, with a brush or feather, and the bugs will soon disappear.

By putting the bandage where the bedstead will protect it from coming in contact with the bed-clothing, the tar will be less inconvenience than bugs. M. G. Leavenworth, Kansas.

Take five cents' worth of quicksilver, and a piece of lard as large as a hen's egg. Rub them together in a stone mortar or earthen bowl until the quicksilver is well mixed with the lard. This mixture is similar to blue ointment. Put a small quantity in the crevices of your bedsteads. This ointment has the advantage of liquids, as it does not dry and become useless and will remain for years unless it is washed off.

During last year, no less than 629 agricultural articles were patented in this country. Of these, 117 were seed-planters, 113 harvesters, 58 cultivators, 43 plows, 42 churning, &c.

[For the Country Gentleman and Cultivator.]
SHEEP IN TEXAS.

EDS. CO. GENT.—The flocks of Col. C. B. Shepard, near Long Point, in Washington county, prove that many of the prairies in Texas are well adapted to sheep. His sheep, composed of merinos and mixed blood, are now in such excellent condition, notwithstanding the severe drought, that I give the following items, condensed from his books, for the encouragement of Texas wool growers.

Dr.

Col. S. began wool growing in 1857 by the purchase of 684 sheep, at a cost of.....	\$3,367.50
In 1858, he bought 302 at.....	1,600.00
1859, do. 14 bucks and 20 ewes, (Merinos,).....	920.00
do. 8 South Downs.....	142.00

Total,.....

\$6,179.50

Cr.

1858, June, wool sold at residence, 23c. per lb.....	\$ 962.41
do. 173 sheep sold for mutton do. 44.25 each.....	735.25
1859, do. wool sold do. 29c. per lb.....	1,662.15
do. sheep sold.....	1,001.00
1860, wool sold at residence, 26c. per lb.....	1,880.40

Total,.....

\$6,241.21

Many of the prairies are yet unfenced, hence there has been no expense for food, except a small amount of hay and millet, given during the northers of last winter. The flock had little attendance in 1857, save that given by a Mexican dog of great intelligence. It is said that he kept constantly with the flock except when hungry, when he went to the nearest house, and by barking and gestures asked for food, after receiving which he returned immediately to his charge. The dog mixed freely with the sheep. In crossing streams and dangerous places, he would go ahead and encourage them to follow.

Dr.

In 1858 and '59, a shepherd was employed at cost.....	\$425
Three years shearing, say about.....	200
Salt, say about.....	60

Total,.....

\$685

Cr.

By 80 sheep used for mutton in family, \$4 each,.....	\$320
30 acres of land manured at \$5 per acre,.....	150

Total,.....

\$470

Increase by lambs during 3 years, 1,729.

No. of sheep June 1860, 2,430, worth at least \$6 each, \$14,580, and Col. S. would not sell at \$7 per head. No estimate is made of the interest of money used in buying flock, enough being already given to show that Col. S. has large profits. His sheep have always been very healthy. Col. S. says they have increased in size and yield of wool. The number lost by death can be found from the preceding items.

The location of Col. Shepard is amid fine rolling prairies, traversed by well watered ravines, where cedars and other trees grow, giving shelter from the northers in winter. There also the sheep have water, and shade in summer. There is so little dew in Texas that sheep cannot thrive without plenty of good water. **S. B. BUCKLEY.**

Evergreen, Washington Co., Texas, Aug. 11.

[For the Country Gentleman and Cultivator.]

HOVE OR HOVEN IN CATTLE.

MESSRS. EDITORS—Observing in one of your recent issues some special remarks on the cause and cure of "Hoven," allow me to recommend a simple remedy for the evil, one in which I have so much confidence as to feel perfect freedom in recommending its application.

Let a straw or hay rope (made of two strands of thumb rope laid or twisted together) be introduced between the jaws of the animal, bridlewise, drawing it back by both ends, and tieing it tightly around the roots of the horns at the back of the head, till the jaws are fully opened and gagged. If this is done in the stall and the animal is able to stand or walk, it should be turned out at once and kept moving about, when in a few minutes the distention will subside and all will be well again.

The philosophy of this, simplified, is that the animal finding itself gagged, is excited to effort to get rid of the obstruction, and for this purpose the tongue is brought into requisition to eject the rope, and while this muscular ac-

tion is going on, some latent valve is opened, by which the gas is liberated and escapes.

I have never known any other remedy recommended that would not be quite as bad, if not worse than the disorder. In a case of pure hoven, so short and sudden are its beginning and ending, there would not be time to prepare and administer drugs, if they could avail, before the case would terminate fatally or be relieved by Nature, while stabbing is so revolting and dangerous as not to be taken into account. The swallowing of a piece of turnip, potato, apple, or the like, is a different condition from that of hoven, and should be treated differently. The probang instead of the straw rope must be used to get rid of substances lodged in the gullet.

Every one having cattle should have one or more ropes ready made for service, so that no time would be lost in constructing one—time is all important in the matter of hoven. If there is any tar at hand it would not be amiss to besmear that part of the rope with it that is to go into the mouth of the animal. I can give no reason for the tar accelerating the process, other than it increases, perhaps, the revulsion or repugnance to the rope, and causes the saliva to flow more freely. But tar or no tar, let the rope be applied as directed.

This remedy has been long known to me, and frequently adverted to through many years. **JAMES GOWEN.**
Mount Airy, Philadelphia, Aug. 10, 1860.

[For the Country Gentleman and Cultivator.]

GOOD SHEEP IN CANADA.

EDS. CO. GENT.—In your issue of the 2d inst., I perceived you gave an extract from the "Southern Planter," which stated that a gentleman of Virginia had been making importations of stock from England. Among the sheep imported, was a Cotswold ram of such size that the editor had the curiosity to measure him. He then gives the dimensions which are certainly large, but we are pleased in being able to state that we can produce something still larger, and we would at the same time, most respectfully inform the editor of that paper, as well as any other of our American cousins who may wish to excel in sheep, that they might possibly be as well accommodated in Canada, and thus save the trouble and expence (not to say risk,) of going across the Atlantic for the desired object.

I have a ram of the Improved Leicester breed, which, after seeing the aforesaid extract, I had the curiosity to measure, and which I found as follows: Length from the top of his eyes to the foot of his tail, (which, by the bye, was cut very short,) five feet two inches—girth behind the shoulders, five feet ten inches—width across the back twenty-four inches—weight 12th August, 353 lbs. The measurement is given irrespective of wool.

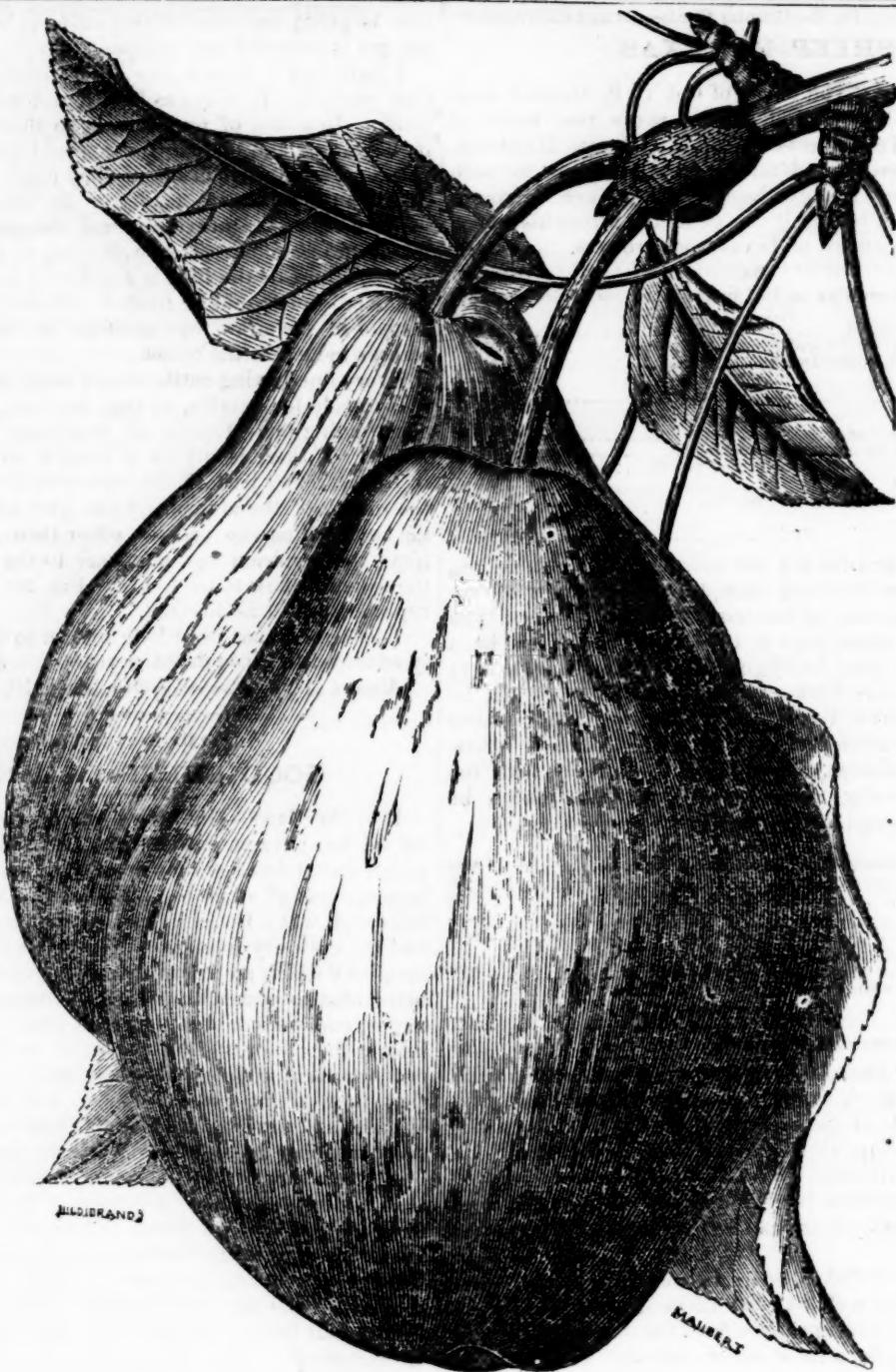
But before I conclude, I would just remark that "size" is not the only desired qualification in sheep, no more than other animals. Our great object should be to combine *quality, symmetry, and wool*, to correspond with their weight of carcass.

Now, gentlemen, since I have taken the liberty to trouble you thus far, allow me to ask of you a little information as to what encouragement is given to foreign or Canadian exhibitors, at your State Fairs. If your terms are liberal, I might probably show the sheep above noticed, as well as some others of my flock, at your next exhibition at Elmira, should they not be disposed of before that time.

THOMAS GUY.
Sydenham Farm, Port Oshawa, C. W.

The N. Y. State Ag. Society offer prizes of \$10 for the best ram—\$10 for the best pen of five ewes, and \$5 for the best pen of three lambs, for the different breeds of sheep, from out of the State. We shall hope to see some of our correspondent's sheep at Elmira.

RICHARD S. FAY. of Lynn, Mass., one of the best sheep-raisers and agriculturists in that State, has recently imported two Oxford-Down bucks, one of which is two years old and weighs 230 lbs.



THE BEZI MAI PEAR.

We present herewith an Engraving of this Pear, which is a Seedling originally produced by DE JONGHE of Brussels. He describes it in a late number of the Gardener's Chronicle as possessing some points of excellence, which if it would retain on trial in this country, would render it a decided acquisition—a consideration which has lead us to copy the Engraving for the COUNTRY GENTLEMAN from the Revue Horticole for June last. Mr. De Jonghe says:

In 1856, when it first bore fruit, it was 11 years old. The fruit, seventeen in number in 1857, were of the Chaumontel form. In 1858 the fruit remaining on the tree after the hurricane of July 25th and at the time of gathering were only thirty. I carefully tasted the fruits of 1856, 1857, and 1858, and determined their quality. From three seasons' experience the ordinary time of ripening is in May, hence the name which is added to that designating its form. At the time of gathering, its skin is of a dull green, marked with brown dots. The eye is

small with short stiff open segments; the stalk is brown, woody, of the length represented in the figure. Towards the ripening period the skin becomes of a lighter and more uniform green, with a yellowish tinge, and softening near the stalk. The flesh is as buttery as that of the Easter Beurré, as close as that of the Glout Moreau, and free from grit; the juice is abundant, sugary, and high flavored; the filaments forming the axis of the fruit are very slender and scarcely apparent; the seeds, 4—6, are large, oval, of a coffee-brown color. The fruit is hard and heavy. It is to be remarked that the fruits gathered from the 23d of September to the 20th of October, all ripened equally in May. Those gathered latest were, however, the largest, and proved of best quality. Another point worthy of notice is, that the fruit blown down by the wind in the end of September and beginning of October in 1857 and 1858, have not suffered from their fall.

In conclusion, the Bezi Mai is recommended for the good appearance of the tree, its hardiness, productiveness, the beauty of its fruit, its late and prolonged period of ripening, its good quality, sound keeping, and adaptation for bearing carriage.

Pike's Defiance Cucumber.

We present herewith an Engraving representing upon a scale of one-third its natural size, this favorite English cucumber, especially noted for its abundant product and the precocity and rapidity of its growth. The Revue Horticole mentions an instance in which 13 seeds sown by one of the large Paris vegetable gardeners, gave birth to 13 plants which at the end of five weeks had a kilogramme's weight of fruit upon them, about 2½ lbs., fit for marketing, while another of the best early varieties under the same treatment, furnished nothing at all that could be sold until a fortnight later. This grower reckoned the product of the 13 plants at 25 cucumbers apiece, or a total of 300, and expressed so much satisfaction with it, that it was his determination the present year to occupy no less than a hundred sash with this sort alone.

The Pike's Defiance resembles somewhat the Gladiator and Man of Kent, but is said to excel both in the qualities above remarked—earliness, rapidity of growth, and abundant yield. It is well adapted for forcing, for which purpose some particulars of the French system may be read with interest. The seed is there sown at any time from the beginning of February into May, in pots of about an inch and a half diameter (4 centimetres) plunged in the hot-bed. Re-potted ten days later in a larger size, at the end of a second ten days it is a third time shifted into a pot still larger and at the end of six weeks to its final location in the bed, four plants to each frame about 3 feet 3 inches by 4 feet 7 inches. The culture adopted is to pinch successively to three eyes the stalk and the two principal shoots put out after the first pinching. The plant is then left to itself, except as regards directing the branches in a suitable way; the cucumber should be ready for picking, if there has been a fair degree of sunshine, in six or seven weeks, and it is particularly recommended, if an abundant crop rather than large size is the object sought for, to remove the cucumbers as fast as they become eatable, so as not to fatigue the plant. A successive development of new fruits in very large number is thus secured. Similar pains and similar training are recommended for those grown out of doors, and an equally abundant crop, although not so quick a one, is promised—say toward the end of the second month.

[For the Country Gentleman and Cultivator.]
Keep the Sheep in Good Condition.

MESSRS. TUCKER & SON—I see there continue to be inquiries as to the riddance of ticks from sheep, and very frequently Mr. JOHNSTON's theory of good care and feeding is doubted, and by others the credit of his success is given to linseed meal, which he feeds liberally. I have long since thought, when I saw him wielding his pen in defence of good care and keeping to rid sheep of that pest, and all others making inquiries as to how they should get rid of ticks on their sheep, that I would take my pen and lend

**PIKE'S DEFIAENCE CUCUMBER.**

him a helping hand in his theory, or practice if you prefer that word. Some twelve years since I began a new flock of sheep by the purchase of twenty head from a large flock that were in rather poor condition. I fitted a loose stable with boards and floor, in which they were kept nights and stormy days, having boards hung on hinges at the sides, that could be opened and shut at pleasure for the purpose of ventilation. The result was, my sheep gained all winter without grain of any kind or roots, and in the spring not a tick was seen on any of them. Such has been my practice from that time to the present, and some years have wintered eighty—commonly about forty or fifty—have never fed any oil meal, and have never seen a tick on either sheep or lamb during the whole of that time. I think the doctrine of protection from cold wet storms in late fall, winter and spring, with good care and keep, will eradicate all the ticks in America. An experience of twelve years is satisfactory to me at least. Now is the time for those that raise ticks and wish to get rid of them, to prepare a shelter for their sheep, and see that they are taken care of in our cold wet storms, and all will be safe. Such at least is my experience.

Rome, Sept. 5.

JONATHAN TALCOTT.

EDITORIAL CORRESPONDENCE.

A Day at the Springfield Horse Show.

Going back to the Beginning—Original Plan Embracing several States and Migratory Exhibitions—Is this Suggestion Now a more Feasible one?—Hampden Park—The Entries and Character of the Show—Mr. Brown's Century Team—Premiums on Walking Horses—Thoroughbreds, Stallions, and the Patchen Colts—Award of State Prize Banner—The Harvest Club—Fields of Roots—Conclusion.

As other engagements permitted me to spend but a single day at Hampden Park last week, and that the Second Day of the Exhibition, (it is the Third and Fourth, which are really the "great" days,) it is of course beyond my power to give from personal observation a very full account of the attendance and proceedings. There may therefore be the more excuse if I imitate the high precedent afforded by that simple-minded and trustworthy Historian of New-York, DIEDRICH KNICKERBOCKER, who, if I recollect aright, commences his Annals of this noble State with a brief and succinct account of the Creation of Man and the Noachian Deluge!

It will not be necessary, at this time, however, to go back even to the date of the Revolution or the Last War; indeed, "not to put too fine a point upon it," if one may venture to quote the voluminous MICAWBER,—eight years only will answer our purpose sufficiently well, the present having been the Fourth in a Biennial Series of Exhibitions, of which the First took place in 1853. The Report of it then published in the COUNTRY GENTLEMAN, contains the following:

"The project of this Exhibition had its rise in Springfield. In May last GEORGE M. ATWATER proposed to the Hampden County Agricultural Society the holding of such an exhibition in connection with their annual Fair."

The health of the gentleman whose name is here mentioned was also given by the lamented C. P. HOLCOMB of Delaware, at the Banquet that followed, as the "originator of the idea of a National Horse Convention." I refer to these facts so particularly now, because, after eight years, they will bear a repetition, and in order that the credit of a "Yankee Notion" which has been so widely imitated, may rest where it fairly belongs. Mr. ATWATER's undertaking was not without its impediments at the outset; but the high position occupied by himself and his co-adjudicators, and their steadfast opposition from the first to anything like "jockeyism" and trickery, have done much to promote the Improvement of our Horses by showing that it is not by any means a cause necessarily allied with gambling and demoralization, but, on the contrary, one in which all classes—both farmers and townsmen—have a pecuniary interest amply worth the sober looking after.

The system of Exhibitions as finally adopted, however, was not that originally contemplated by Mr. A. His first scheme, which seems to me to combine some important features as yet unattained, and well worthy of public regard, embraced the idea of an Association of Subscribers liable as the guarantors of the Shows undertaken, whose profits, if any should accrue, were to be expended in the purchase of stallions from time to time for the use of themselves and others: the Shows to be held in a triennial series—for example, one year in New-England, the next year as far west as New-York or Ohio, the third year as far south as Pennsylvania or the District of Columbia, the fourth again in New-England, and so on; the services of the Stallion belonging to the Association to be migratory with its shows, and the objects being to accomplish still more perfectly the ends now only in part attained—the more general diffusion of good horses, wherever bred, by

overcoming the barriers separating the breeders of different localities, and acquainting each region with the merits possessed by the stock of the others—to carry the best stallions of New-England for a season into the neighboring States on the south and west, and to bring back in turn the best blood from those districts, and place it within the reach of Maine, New-Hampshire, Massachusetts, Vermont and Connecticut. By holding the Shows triennially, moreover, when the year came around in each locality, a new generation would be found ready for public examination and trial—the three-year-olds of the last Show coming in as Six, and the colts then sired having made sufficient growth to show fairly the mettle they possessed.

This brief outline will convey but an imperfect impression of the excellent plan which Mr. Atwater at first designed. The public mind was not found ready for its adoption. Subscriptions would have been secured, perhaps, to carry it on, for the financial arrangements proposed, into the particulars of which I have not the space to enter, were of such a kind as to avoid the risk of too heavy a burden being thrown upon a few in case of partial failure, but the necessary co-operation in the other States concerned, was more difficult to obtain, and from this difficulty the design was subsequently modified until it assumed its present form. Springfield has thus to thank Mr. A. and his associates for a fine park, which I hope we shall learn that the present show has entirely freed from all remaining incumbrances, and for the periodical recurrence of an event which draws many strangers from all parts of the Union into her pleasant streets and well managed hotels. But shall I be going beyond my allotted sphere, if I put it here, plainly and directly, to the breeders, the farmers, the citizens, of the region comprised above—say the whole north-eastern quarter of the Union, whether a scheme embracing the principal points in Mr. Atwater's original design, might not now be more favorably entertained, and still more advantageously adopted? I hazard the suggestion at no prompting of his, but confident that he would not be wanting if his experience or public spirit can be rendered of service in the promotion of such a project—and as sowing seed as we pass, that may chance to fall upon good ground, although it should be long in the germination.

Hampden Park contains about sixty acres of that almost perfectly level interval which here extends, to the width of perhaps half a mile, for about five miles along the eastern bank of the Connecticut, and for nearly three miles on the other bank—land admirable for grass, being subject to overflow from the waters of the river. The Association purchased it, I believe, at about \$200 per acre, and immediately expended \$4,000 more in the construction of an embankment which keeps the whole perfectly dry in all seasons, and the broad top of which constitutes a delightful promenade along the water-side. A rising stand of seats calculated to accommodate 1,800 visitors, securely and permanently built, is upon the same side of the field—the two tracks only intervening between it and the ornamental double-story erection opposite, for the Judges' purposes. One of these tracks, that nearest to the seats, is a mile in length, and is separated from the interior one, which measures a full half mile, by a substantial railing, so that the two are entirely separate and distinct. The advantage of this excellent arrangement consists in the fact that the carriages of visitors can occupy the mile track without any interference with what is going

on within, or the two may be otherwise simultaneously employed for different purposes. In the upper corner of the field near the entrance, a large and permanent structure supplies stables upon each side, an apartment for sulkies, &c., between them, and above them a convenient room, intended if necessary for discussions or other meetings. Long ranges of other stables have also been erected to accommodate the large numbers entered for exhibition.

With so many classes as there are to undergo examination, of course much of the Judges' work is done in the field, where each class is summoned under a flag or sign designating its number. But to maintain a constant interest where the spectators are looking down upon the track, all the classes are exhibited there, and the scene presented is rendered much the more lively by their more rapid succession after one another, as well as by the music of one of the best bands in New-England stationed close by. In all these details the arrangements are so well and systematically prepared, that I have thought them worthy of being brought into notice, as suggestive in many respects to the Managers of other Societies.

The Exhibition this year included Wednesday morning, 532 entries, comprising 617 horses, of which number 184 were for exhibition only—not competing for prizes. I understood that several farther entries were made in the course of the day, and that the total largely exceeds the entries of any former year. The thorough-bred classes, as usual, are not large, embracing but five stallions and four mares. The classes of breeding mares exhibited on Tuesday, were spoken of as having not been quite up to the mark, but the turn-out of Saddle horses on Wednesday was fairish, those of Matched and Family horses, and in one or two other classes, very large; and I was assured by the best judges I met, that while there were fewer celebrities present than has sometimes been the case, to attract notice by their speed upon the track, the average merit throughout shows a most gratifying advance upon the previous Exhibitions.

My own observations were too imperfect to admit of particularizing without seeming invidious, except in one or two instances in which the unique character of what was shown was such as to leave no room for "odious comparisons." Of such sort was the four-in-hand team of *old horses* shown by LEWIS B. BROWN of Westchester Co., N. Y., heretofore noticed in our columns, and now aggregating a total age of 108 years, the oldest having reached the mature period of 35! The only difficulty in driving them is to *hold in the leaders*, and a *four minute gait** they appear to take much easier than many of their younger brethren. Mr. Brown had generously placed several prizes for fast walking horses at the disposition of the Judges, for which I was glad to know that there were several entries, one including I believe a family of four near relatives, but the trial of these was to be made after I left.†

The only other four-in-hand turnout was that of SIMEON LELAND, of the Metropolitan Hotel, New-York, who is, moreover, quite a farmer in Westchester. The first and only premium of \$200 for thorough-bred stallions, was carried off by "Comet," owned by Alexander Bathgate of Fordham, Westchester, Co., N. Y., and that of \$100 on

* I am not giving them the credit they deserve, as I find them reported on Thursday as making the mile in from 3:15 to 3:30. "four persons in the wagon, without showing a sign of fatigue." I ought to add that the owner of this team does not exhibit for money or fame, but to induce others to take care of their old horses, and also to show that good blood will tell.

† SOLON ROBINSON has the following in the Tribune:—After the cavalcade, the horses entered for Lewis B. Brown's special prize for the best walking horse, were called on and ordered to walk a mile. I regret to be obliged to say that not one-third of the seventeen entered performed the service. They simply proved that horses have not been bred and trained for this most useful of all gaits for a horse for every day work. Nearly all of these exhibited had a sort of amble, about half way between a walk and a pace. The most of them were ruled off by the judges at the first trial. There was one, a five year old Morrill mare, a dark grey, which proved herself a square handsome walker at five miles an hour, and she will get the first prize. The second was harder to decide between a bay under the saddle and a bay in harness. These three walked well, and a couple of others tolerably well; but it is very evident that more attention is needed to this feature in horse breeding. There is no doubt about the fact that Mr. Brown has awakened an interest that will not sleep until it has accomplished a great good to the country."

thorough-bred Mares, by Narcissus, owned by Henry Booth of West Farms in the same county. Among other Stallions entered for competition, attracting great attention, were Dr. Rich's "Jupiter" from New-York, Hill & Baldwin's "Patrick Henry" from Essex Co., N. Y., Linsley Brothers' "Pathfinder," from Connecticut, &c., &c.

CHARLES W. BATHGATE, Westchester Co., N. Y., contributed for Exhibition only, three young Stallions, sired by the now famous horse "Geo. M. Patchen," who has done so much to prove that the highest degree of speed as a trotter is not inseparable from *greater size* than has hitherto been supposed likely to make the best time. Two of these colts of Mr. Bathgate's are five years old, "New-Jersey" and "Major Low," and the third, two years younger, "Buckley," promises, as well as his seniors, to make a mark in the world. The one first named, New-Jersey, is the highest bred of the three, and takes the eye most favorably at first, but this advantage is so nearly counterbalanced in other respects by the other two, that it is a very close matter to rank either above the rest.

There is much that I should like to mention, but I find myself already on the "home-stretch" in this correspondence, with its utmost limits closely in view. I am indebted to the attention of the Secretary, J. N. BAGG, for being able to add that at the closing procession on Friday, New-York was represented by 64 horses ("of the greatest aggregate value, probably," remarks Solon Robinson, "of any lot of equal number ever collected together in the United States"); then followed Connecticut with 84, her numbers carrying off the State Prize banner, Vermont with 13, New-Hampshire 5, Rhode Island 7, Maine 6, Wisconsin 2, Illinois 2, and, lastly, the long line of the Massachusetts ranks—the whole thus concluding happily and profitably, without drawback of any kind except in the shower reported on Thursday. We should be glad to publish the list of awards if space permitted.

— But, owing to the kindness of Mr. ATWATER, my day was not wholly taken up with the display at Hampden Park. Another institution in which he has had a prominent hand, the "Harvest Club," is doing a good work by the ownership of the excellent Short-Horn Bull, "Double Duke," of Mr. Sherwood's breeding, purchased three years ago—and on Double Duke we made a passing call at the stables of Mr. PYNCHON. Thence a mile or two to the northward, where we stopped to see two acres of roots—carrots, ruta bagas and parsnips, which Mr. A. is cultivating successfully and profitably—this year testing upon half-acre plots, manured and cultivated alike, the different results of each, together with those from corn and grass land under similar treatment.

Upon one plot he has adopted a method worthy of mention to those who complain that they cannot put their carrots near enough together to get a good crop and still cultivate them by horse power. This is to put in the carrots *forty inches* apart, and after they have been well cultivated and got a good start—say from the middle to the 20th or 25th of July, to alternate them with rows of ruta bagas (Swedish turnips)—thus occupying the space for another crop without impeding the early cultivation of the carrots. This was intended, I believe, merely as an experiment, and I hope that Mr. A., after the roots are harvested, will favor us with its results, as well as with those upon the adjoining plots. But it should be added that Mr. A. has had no difficulty in keeping the carrots clean, altogether by horse cultivation, even, as I understood, when grown in rows as near together as twenty inches.

— Then, after paying our respects to the sole peach tree in all that region which is known to be in fruit this year, nestling away in the shade when there is little to account for its singular persistence in well-doing,—we gain our way slowly to a higher and narrow plateau, and next to a third and wider one, that stretches back behind a belt of trees to form, I believe, a not very productive and pretty well-worn series of upland farms, but, in the abrupt and wayward curves with which it winds in a succession of knolls along the valley below, affording some picturesque scenery, in the midst of which Mr. Atwater has selected the site of his present residence. The house, protected

all around by the trees, except upon the side looking toward the valley, matches the semi-circular form of the "bluff"—as western men would call it—on which it stands, with a bay window commanding—beyond the smooth lawn that breaks away so suddenly, at a little distance, into a panorama of the interval beyond and below it—the roads along which we came, the farmstead of Mr. BIRNIE with his Ayrshires in the vale almost in front, the curving river soon lost on either hand between its own green banks, with old Tom and Holyoke pressing their twin summits against the sky at our right; and, away off to the left, another glance of the silvery river, and distant views, mostly in-blue and brown, of the farms and farming of the State to which it gives its name. Our day—thanks to many kind attentions—has been a pleasant one, and we could choose no pleasanter spot in which to jot down our closing congratulations to the Managers of these Exhibitions, upon the results of this—their most successful effort in behalf of that noble friend and servant of the human race, of whose beauties and docility we have just seen so many admirable examples among the Horses yonder at Hampden Park.

L. H. T.

BUCKWHEAT FOR FATTENING STOCK

An inquiry as to the value of buckwheat for feeding purposes, having appeared in the *Rural New-Yorker*, that veteran feeder and close observer, John Johnston, sends in a reply. We copy below the material facts of his letter. As to the extent and results of his experience, he says:

"I have fattened many cattle, and far more sheep, on all or part buckwheat for the last twenty years, and it will fat stock as well for the amount of pounds as any other grain, oats, perhaps, excepted; and I would much rather have half buckwheat meal than all corn meal to feed to three year old steers that have not been fed grain. I have probably as fat a heifer as is in the State. Her feed was buckwheat bran last winter and spring, and pasture only since the 6th of May."

Mr. Johnston tells us that a friend of his fattened 350 head of sheep last winter on three bushels of buckwheat per day to the hundred head, with straw for fodder and plenty of litter, and he made prime fat sheep, though many of them were lean when he commenced feeding. Some say they have fed sheep on buckwheat with poor success—the animals losing their wool and getting poorer, but Mr. J. never had any such luck, and "no one would from feeding buckwheat who managed right otherwise."

The querist wishes to know if buckwheat makes as solid flesh as other grain. To this the reply is, "I neither know or care, as long as it makes them fat." He has never tried it for hogs, to which it is said to be a poison—which is doubtful.

[For the Country Gentleman and Cultivator.] Buckwheat, &c., for Fattening Stock.

My article on feeding buckwheat, copied from the *Rural New-Yorker*, ought to have read, in place "of oats perhaps, excepted," oats and corn mixed, perhaps excepted. I have often thought that cattle did better on that than any other grain, but oats generally cost more per pound than either buckwheat or corn, and often more than barley. Of course it would be folly to feed oats then. But it matters but little what kind of grain a farmer feeds, if he feeds it by weight. Corn, however, requires the most observation and judgment in feeding to cattle unaccustomed to it.

I never made better sheep than last season, as Capt. McGraw of your city must know. Their feed was barley with a little oil meal. I can make both cattle and sheep fat enough on any kind of grain we raise, except wheat. I tried that when low several times, but it never gave me satisfaction; yet it is strange to say wheat bran will make

sheep, cattle, and horses fat. At half a cent per pound it is cheap feed, and it is often lower in Western New-York.

JOHN JOHNSTON.

P. S.—It is nearly impossible for me to write anything for the papers. My correspondence takes all my spare time. I have been answering from 25 to 40 letters weekly, for several weeks past. I must give up answering so many. It is working me too hard, and there is no use in it. The back numbers of the *Cultivator* for eight or ten years, will give all I know on farming; and the *Ohio Farmer*, published at Cleveland, for 1858 and 1859, will give a great deal of my experience in draining, and some other matters.

J. J.

[For the Country Gentleman and Cultivator.] Buckwheat as Food for Fattening Hogs.

MESSRS. EDITORS—Many persons seem to think this grain injurious to swine. I am not of that number. My grandfather was an earnest advocate for the use of this grain in fattening swine. I have frequently heard him tell of a lot of hogs fattened by him some 75 years since, that weighed when slaughtered near 100 lbs. each more than his neighbors judged them to weigh after being dressed. He said they were remarkably fat. The buckwheat was boiled with potatoes, and the hogs, fifteen in number, had a yard to run in, and the straw thrown to them as often as they needed to keep them clean. I think as much of buckwheat for hogs as Mr. JOHNSTON does for cattle and sheep. I feed it frequently and never knew any bad results, even from breeding sows or pigs.

JONATHAN TALCOTT.

[For the Cultivator and Country Gentleman.] Saltpetre for Throat Complaints, etc.

I see an article going the round of the newspapers headed "Cure for Bronchitis," recommending what has long been known as a remedy for internal throat complaints. It is an almost certain supplanter of quinsy, taken in the first stages, as recommended for bronchitis. For scrofula, king's evil, and complaints arising from impure blood, it is a sovereign remedy, and I know no better ready relief for sore eyes than common nitre or saltpetre. I have known of many, by doctors declared incurable, both in king's evil and inflammatory eyes, completely cured by using this remedy twice or thrice a day. A piece about the size of a marrowfat pea is sufficient for a dose. The best mode of taking it is to let it lay as far back on the tongue as possible, and let it dissolve of its own accord.

Skaneateles, N. Y.

W. M. BEAUCHAMP.

FATTENING POULTRY.

Many persons do not succeed in fattening poultry according to the plan generally approved by breeders; and after shutting two or three of them up together in the dark, find they do not gain flesh. In such case they should be at once examined for lice, and if any are found on them, grease them well under the wings, on the breast-bone, and about the root of the tail; or if they are wild and have never been inclined to eat freely and quietly, they should be fed moderately at first if possible, and efforts made to quiet them and make them tame, without which feeling no animal will fatten readily. But by all means keep them free from vermin—either by the use of grease as above, or by mixing a little sulphur in their meal at first. The coup must be kept clean, and fresh water given the fowls; but when about to kill, both food and water should not be given them for some fifteen hours just previous.

S.

A GOOD MILKER.

MESSRS. EDITORS—You recently gave an article headed "Ayrshire Prize Milkers," in which is given the weight of milk of four Ayrshire cows, which won prizes at the Ayrshire Ag. Society in Scotland.

I wish you could give the weight of the several cows.

I have a small Ayrshire cow whose live weight is but 860 pounds, six years old, imported when a year old, which gave 300 pounds of milk in seven days—equal to her live weight in twenty days. I do not mention it as extraordinary, but for the sake of comparison. L. SWEETSER. Amherst, Mass.

[For the Country Gentleman and Cultivator.]
CUTTING UP CORN.

EDS. CO. GENT.—As this is the season for cutting up corn, I will give you my method of doing it. We take seven rows at a time; the middle row we set the shocks on, leaving three rows on each side. Then, if the corn is very heavy, we set the first shock on the third hill from the edge, and the next on the fifth hill from that, making thirty-five hills in a shock. Ordinary corn I set the first shock on the fourth hill, and the next on the seventh hill from that, and so on every seventh hill, making forty-nine hills to a shock. The next row of shocks I cut the same, placing them on the corresponding hills with the first row.

This leaves them in straight rows each way. My method of putting up the shock is this: I leave the hill uncut; place an arm-full or two of corn around it, and with a single band of rye straw bind it. Then set the remainder of the corn around it, and tie it with a good double band of rye straw. When we come to husk it, we take two of these rows of shocks, throwing down four shocks, (two from each row,) with their tops toward a common centre where we make the heap of corn. Each of these shocks we tie in three sheaves after husking, or four if large, setting the stalks out of the four in one shock. I find this a very convenient mode. My stalks are cured nicely, and I find no difficulty in stacking them so as to keep.

Frenchtown, N. J.

J. W. LEQUAR.

[For the Country Gentleman and Cultivator.]
CURING CORN FODDER.

MESSRS. EDITORS—I occasionally see inquiries as to the best method of curing and keeping corn sown for fodder. With your permission I will give the mode I pursue, although I do not consider it the *best*, for I think all kinds of fodder *housed*, better than when exposed to the weather. But many, after securing their hay and grain crops, have not room, or ought not to have room, for storing this kind of fodder, unless they pull down their barns and build larger, for it requires a good deal of room, as it will not do to pack it close.

I sow the seed in drills two feet apart, and when the corn is tasseled out, it is cut up with a common corn cutter, and laid in small bunches for binding—the bundles should be small, as it cures better. After binding it is put into small shocks and allowed to remain in the field several weeks to dry. It is then drawn to some convenient spot near the barn, and re-shocked, the shocks being made much larger than at first, and the tops well secured by bands of twisted hay—this should be upon elevated ground, so that the water shall not settle around the bottom of the shocks. Here it remains until wanted for feeding out. Treated in this way, I find that it keeps better than when put into stacks, besides it is in a very convenient shape for feeding out. Last fall, however, I made a small stack in this way—rails were placed well up from the ground, and the stalks were laid upon them, butts out—the tops lapping about sixteen inches—the stack was long and narrow, and about six feet high. The top was raised a little, so as to carry off the water, and when finished was covered with a cap of cotton cloth. The fodder kept no better, and was not as convenient for foddering as that in the shocks. If the shocks are well made, the bundles set close and well secured by a strong band at the top, the fodder will keep well until used up.

I have about two acres of this kind of fodder, raised from western seed, which I am now cutting up, and which has attained a very heavy growth. It was sown in drills two feet apart, and worked out once with a light one horse drag. It is quite thick in the rows, and is from six to nine feet high, and not fully tasseled out—the stalks are from one-fourth to three-fourths of an inch in diameter—generally about half an inch. It was sowed the 13th of June. I have another piece of half an acre sowed the 2d of July—this is about three feet high, and is just the thing for feeding milch cows at this season of the year. This piece of ground was fitted and sown to turnips, but the fly destroyed them as soon as out of the ground, and the corn

was put in in this way—a light one horse plow running three inches deep was followed by a seed sower, and the seed scattered in the furrow, and covered with the next, and so on through the piece—nothing more was done to the crop. This way of putting in the seed when the crop is to be fed off green, does very well, but for making into dry fodder it is not as convenient to cut and bind as when in drills. *J. L. R. Jefferson Co., N. N., Sept. 14.*

• • •

[For the Country Gentleman and Cultivator.]
My Experience in Cider-Making.

MESSRS. EDITORS—Seeing an inquiry in a late number of your paper for cheap Cider Mills, I am induced to give you my experience over thirty years ago in cider-making. At that time I lived eight miles west of the Hudson. I had a fine orchard of choice grafted fruit, and calculated somewhat on making the same profitable to me; but, alas, there was no mill nearer than four miles, and there the fruit was thrown amidst as scurvy a lot as eyes ever fell on; consequently I found I could not obtain the pure juice of my own apples; then too an extra journey had to be taken for the cider, making sixteen miles certain, sometimes twenty-four.

This I knew would not do; I therefore proposed to a relative living with me, that as there was part of a dilapidated cider-press on the farm, that we would make a mill and grind the apples at home. I got two suitable pieces for rollers, which were given to the village turner with a drawing; then I sent to the blacksmith to make teeth and cogs for the rollers, spindles and crank, all according to patterns sent. Whilst this was doing, we were busy making the frame with three-inch scantling and boards. We commenced the making at 4 o'clock P. M.; at six had the rollers in, then the cog-teeth and grinding-teeth—the latter I had to draw out, having driven them in too much, and reset them. By 8 o'clock the next morning it was in running order, and worked admirably and remarkably light, having a balance wheel six feet in diameter, made from two tires of wagon wheels. By 4 o'clock P. M., we had seven barrels of cider made and in the cellar.

Now for the expense—I paid out less than two dollars and a half for blacksmith's work, iron, turning, and timber; I had a mill that with careful usage would last twenty-five years; I had cider that I sold for three dollars per barrel, and the apple-pomace for my hogs, after making a cider of inferior grade. Another advantage was, it saved sixteen miles travel—I could make my cider evenings and mornings, or on wet days.

The cider made at the public press, sold the same season for six shillings, that is seventy-five cents per barrel. The rule then was to take eight bushels of apples and receive therefor a barrel of cider, or a barrel of whisky for ten barrels of cider. No charge for making was made.

I have long thought of getting up a simple hand-mill, at from three to five dollars—one that will do more efficient work than any patent mill I ever saw—and I may perhaps do so for our coming town fair.

My plan of cider-making was to grind the apples in the evening—press out in the morning, and let it run all day, and barrel at night; sometimes reverse it, grind in the morning, press out and barrel in the evening—letting the cheese run all night. The pomace I sometimes ran through the mill a second time, then water it sufficiently and let it lay a short time and press it. This forms a drinkable article much sooner than the pure juice, and fines more rapidly. A little water is of advantage to the best of apple juice; I think six quarts to a barrel of pure juice.

Such a mill set coarse, may be used for crushing roots of various kinds for hogs and stock, with as little labor as that bestowed in cutting straw, and I think at less expenditure of strength. *W. M. BEAUCHAMP.*

Skaneateles, August, 1860.

• • •

Col. J. M. SHENWOOD of Auburn, has recently sold a fine young Shorthorn bull, "Christmas Duke," 2628, to G. W. Rosenberger, Esq., of Rockingham Co., Va.

[For the Country Gentleman and Cultivator.]

LETTER FROM LEVI BARTLETT.

How the Shakers Unload Hay.

In the Co. GENT. of August 9th, JOHN MOORE of Oxford, N. Y., inquires about the Shaker mode of unloading hay. Unloading hay by means of hook and horse power, has been practiced for many years past by the Shakers at Canterbury, N. H., an account of which was published in the (old) New-England Farmer, some twenty years ago; with Mr. Moore, it "strikes me as being superior to the horse fork, both as to the easement and dispatch." If I recollect right, it required but "four grabs" of the hooks to carry a ton of hay from the cart, over the "high beams," and deposit it, by the aid of the person on the mow, in the right place.

The South Family of Shakers at Canterbury, have recently erected a new and capacious barn, so arranged that the loads of hay are driven into the upper story, and the hay is pitched "down instead of up." Consequently they now have no use for *hooks* in unloading the hay. I was at their place a few weeks since, and saw the hooks which they formerly used, but did not notice their particular form, size, &c. I presume Mr. Moore could obtain the desired information by writing to David Parker, or Robert Shepard, Trustees of the 1st Family of Shakers—post office address, Shaker Village, Canterbury, N. H.

Stable Floors—Tying up Cattle.

In the same number of the Co. GENT., H. P. Norton inquires "what will make the best floor for stables in a basement story."

I do not know but "stone and gravel" makes a good stable floor; but I am quite well satisfied with stable and hovel floors made with good sound pine or hemlock, two inch plank, with an under floor of inch boards. My cattle stand on a raised platform, with a water-tight gutter in the rear, which receives their droppings, consequently they are as clean and free from filth as if they remained in the pasture. In fastening my cattle in the hovel, I have made use of wooden bows, chains and leather straps; but all these gave them too much leeway. They would, when lying down, get back into their filth. Some five years ago I fitted up my hovels with stanchions, and am satisfied with them, and my oxen and cows appear to be so, for they are as eager to get into the hovels, when taken from the pasture at night, in this dog-day weather, as they are in the coldest days of winter. The floors are well littered with sawdust, loam or muck, which gives a much softer bed than Mr. Meehi's latticed hovel floors, which have no bedding of any description. Some of my cows have not passed a night outside of my hovel for five years.

I regret that I had not more particularly noticed the Shaker arrangement for fastening and loosing their cows "all at a time;" but I doubt not that Mr. Norton can obtain the required information by writing to Messrs. Parker or Shepard (as above directed), for it is a principle of the Shakers "to do good and communicate."

[For the Country Gentleman and Cultivator.]

How to Keep Pumpkins.

I see that R. B. P. wishes to know how to keep pumpkins through the winter. To preserve them for domestic uses, they must be cut into thin slices and dried; but I wish to give you my practice in keeping pumpkins for feeding to cows or other stock. As soon as my corn is cut up and stooked, and the pumpkins are ripe enough to be taken from the vine, I take the largest and the best and place them under the stocks of corn, being careful not to break the stem from the pumpkin. This should be done before too many hard frosts. In this place they are left until the corn is husked out, unless wanted for feeding; then they are drawn to the barn and placed carefully on the floor; from thence to the cellar, when the weather becomes sufficiently cool, and be careful to keep them dry and cool. Commence feeding the poorer ones first, and then the better ones, as long as they last.

I am astonished to see many good farmers leave their

pumpkins in the field until they become frost bitten and sun burnt, and almost worthless, before feeding them to their stock.

A SUBSCRIBER.

[For the Country Gentleman and Cultivator.]

POTATOES—FALL PLANTING.

With a view to obtaining new potatoes earlier than by the usual process of spring planting, I prepared a small patch in the garden, as follows:

Dug trenches nine inches deep, two feet four inches apart—strewed on the bottom long stable manure—set early Junes, whole, eight inches apart; then another layer of long litter fresh from the stable, and filled up with four inches of soil. All this on the 18th November.

As soon as the surface got to be well frozen, spread, as is my usual practice, a light layer of straw all over the garden. They appeared above ground 14th May. Dug between rows, and planted seventy-five Early York cabbages. Dug 26th July one and three-quarters bushels and two quarts, leaving the cabbage almost headed. Dimensions of patch, 252 square feet, which, throwing away the two odd quarts, gives 303 bushels to the acre. Such a yield, however, is not to be expected from field culture on a large scale, nor is the process and its results sufficiently tested to warrant its adoption extensively; but under certain circumstances it may be convenient and good economy, and the result of this little experiment affords good encouragement to repeat it.

As respects an *early* crop, the attempt was a failure. Potatoes of same kind planted 3d April came up and matured ten days earlier—the fall planted, however, turned out larger, and very few small—and it is believed much more in quantity, though there were no means of making an accurate comparison.

It is intended this fall to repeat the experiment with "peach blows" (*earliness* being out of the question,) with furrows wide enough apart to admit of plowing between, and filling up *at the proper time* with cabbage or ruta baga plants. C. Salisbury Mills, August, 1860.

[For the Country Gentleman and Cultivator.]

BREAD FROM UNBOLTED FLOUR.

EDS. CO. GENT.—A correspondent asks for some directions for making bread from unbolted wheat flour. I have used it in my family for several years, and am glad to give any one the benefit of my experience. We like it particularly, baked fresh for breakfast, and although I am no advocate for warm bread, I recommend this because I never knew it to hurt any one; it is not clammy and indigestible, like bread made from fine flour.

Take a pint of sour milk with a spoonful or two of cream or buttermilk if you have it. Add salt and a table spoonful of sugar (if you like it sweetened;) then stir in the flour, without sifting, of course, until it forms a *very* stiff batter. Add a small teaspoonful of soda. Bake it in shallow pans with a quick fire, and you will have as light and wholesome a breakfast cake as you can desire.

And here let me add that I think this flour makes better griddle cakes than buckwheat.

For bread I think it is best made on a fine flour foundation, that is, when your white bread is ready to mould, but before any flour is added, take out enough for one loaf and add to it one or two spoonfuls of molasses and as much cold water; work these thoroughly, or the bread will be striped; then stir in as much unbolted flour as you can, but do not mould it. Let it stand to rise with the white loaves; it will not appear to rise as they do, but will be ready for the oven at the same time. H. Keene, N. H.

Raising Turkeys.

We procured the Bronze Turkeys, and find them more hardy. I not only feed the young turkeys mostly upon eggs, but I give them all the shells, pulverized with the hands. They need something of the kind, and will eat them many times in preference to the inside. I did not lose one out of twenty-eight. They have been running at large for three weeks, and we don't feed them at all.

MARIA BROWN.

Inquiries and Answers.

DESTROYING LIVE-FOREVER.—I am sadly perplexed to know what to do with a field on my farm, which is almost completely infested with "live-forever." Will you or some one of your host of correspondents, be kind enough to advise me how to manage the pest so as to get rid of it, if such a thing is possible, or how to employ the field to the best advantage. With the pest in it, I might as well abandon the lot as to attempt to dig it out root by root. Wm H. VAN ORDEN. *Greene Co., N. Y.* [Not having had any experience with this weed, we are not so well qualified to give advice as those who have had it to contend with. We think, however, if it could be turned under and completely buried with a largest size double Michigan plow, it could not survive the smothering process. The work would need of course to be very thoroughly and completely executed. Paring, and carting off the crop for a compost heap, might answer on a moderate scale, but would be more laborious, and probably more imperfect.]

PLANTS FOR NAME.—Will you please inform me through the Cultivator, if the plants, the flowers of which I enclose, are noxious—they are plants which have appeared in this vicinity within the past few years, and are spreading to some extent; being unacquainted with them, I send them to you hoping you may be able to identify them, and thereby confer a favor upon others as well as myself. W. F. H. *West Winfield, Aug. 15.* [The smaller of the plants sent is the *Trifolium procumbens* or yellow clover, which in some places is becoming somewhat troublesome. The other is only a single, badly pressed flower, and therefore difficult to name, but appears to be a *Rudbeckia*, some species of which we understand are assuming the character of a weed.]

HOP-VINE INSECT.—Can any of your numerous correspondents inform me what is the name of the insect that devours the hop leaves, and if they know of any remedy? P. J. B. *Canada East.* [Dr. Fitch describes the Hop-vine Snout-moth, the most destructive insect that devours the leaves of the hop, and probably the one here alluded to. He thinks it probably introduced from Europe, where, according to the statement of Kirby & Spence, "the hop-grower is wholly at the mercy of insects—they are the barometer that indicates the rise and fall of his wealth." They make their appearance suddenly and in immense numbers, and in a few days destroy whole fields. If the hop-grower in Europe has so long suffered from their destructive attacks without remedy, the prospect is not very encouraging here. Dr. Fitch says the only remedy he has seen mentioned, is syringing or showering the vines with strong soap suds or with a solution of oil soap in the proportion of two pounds of the soap to about fifteen gallons of water, but he does not say how efficient this remedy is. It would obviously require great labor and some expense to go over large hop fields.]

SALT AS MANURE.—Will you inform me through the columns of THE CULTIVATOR, whether it is practicable to use salt as a manure, and if it is, to what soils is it the most beneficial, and how is the best mode of applying it? A. WRIGHT. *Alaways Town.* [Salt has been tried to some extent as a manure, and has mostly proved beneficial, more especially to the wheat crop. A few bushels may be sown per acre, and it soon finds its way into the soil by solution. Our own observations indicate the best results on heavy soils.]

TOBACCO.—"L. B." wants to know about culture of tobacco. The culture is very simple, the main object seeming to be, to "make it grow;" but if "L. B." has no means of learning practically the mode of "cutting, curing," &c., he had better let it alone. The plants are obtained from a plant-bed as cabbage plants are. F. S. *Delta, Tenn.*

OSAGE ORANGE.—Tell Inquirer about the Osage Orange, that it is readily propagated by pieces of root eight inches long, set in the spring, with one end just at the surface. It is more sure than seed to grow. A. S. M. *Fredonia, N. Y.*

LOIS WEEDON WHEAT CULTURE.—On page 362, vol. xv, in the account of the system of half fallow culture pursued at Lois Weedon, the average yield of wheat is stated at thirty-six bushels per annum. Does this apply to the *whole area* of five acres, or only to the alternate strips? In other words, do these strips yield at the rate of thirty-six or seven ty-two bushels? The latter, though not unprecedented, seems an immense product. NOVICE. [As but one-half the land is planted, the produce on that portion must be at the rate of seventy-two bushels per acre; but it must not hence be inferred that if the whole land was seeded, the acre would produce seventy-two bushels.]

FIFE WHEAT.—Tell J. B. W., who inquires for Fife wheat, samples of which of which I enclose you, that Walder Buck of Polo, Ogle co., Ill., has a field of 300 acres in Fife wheat this year, and there is another man at Shusong, who has 1600 acres in wheat, mostly Fife. It is extensively raised in this country, and is a good wheat, only it is late in ripening. It should be remembered that it is a spring wheat. J. B. *Mount Morris, Ill.*

INDIAN CORN.—We southern farmers are surprised at the large yields per acre of corn at the north, and I believe you would confer an especial benefit on many readers, by getting one of your *successful* farmers to give a thorough account of their preparation for, and culture, and product of a corn crop, together with the quality of land, variety of corn, distance, implements, time of planting, &c.; and by no means an unimportant item, the locality or latitude in which the crop was made, which I think does not appear as often as it should in the accounts of what some one did, and how and when he did it. F. S. *Delta, Tenn.*

WARTS.—Can you or any of your readers inform me of a cure for warts on a cow's teats? I have a valuable cow badly affected that way, and it is a painful operation for her to be milked.

A YOUNG FARMER.

ONIONS.—I have a field of onions, some of which are very late. Is it advisable to roll the tops down? If so, what is the method of doing it? D. J. B. [Will some of our onion growers answer the above?]

THRESHING MACHINE.—Can any of your numerous subscribers inform me which is the best machine now in use for one horse? I have lately seen a power patented by William Darling of Cincinnati. Has any one used this power who can pass upon its merits? Any information in regard to threshers and horse-powers will be thankfully received.

Limerick Bridge, Pa.

M. R.

Please print a recipe for making huckleberry wine, and much oblige. A SUBSCRIBER. [We are unable to find a recipe for this purpose in any of our books. Perhaps some of our readers can furnish one.]

TOPPING CARROTS.—Can you or any of the readers of the GENTLEMAN, give any easier or more speedy way of topping carrots than taking each one up separately and performing the operation with the knife, a very slow and laborious course? Could it be done with a scythe before digging? W. J. P. [The work is usually done with a knife, the top being used to assist in drawing the root from the earth. A scythe would not do the work with sufficient accuracy or evenness—but a good steel hoe, ground sharp, might be used, and if a deep furrow were carefully plowed from each side, the roots might be taken out easily. A subsoil plow has been advantageously employed.]

MODERN ARCHITECTURE.—Will you please inform me if there is any American work on Architecture, which is good and explicit authority as to the proportions of the various parts and members of the modern Rural Styles, or of which the illustrations even, are models from which such details and proportions can be selected? AMATEUR. [We do not know that we quite understand what our correspondent wants. The plans of Houses furnished in the REGISTER OF RURAL AFFAIRS, and from time to time in this paper, are all drawn upon a scale showing "the parts and members" in due "proportion" with one another; but it is our impression that as a general rule it is the safest and least expensive mode for inexperienced persons to put their plans, however perfect, into the hands of a well qualified architect or builder for execution. More ideas and suggestions with regard to plans can probably be found in the two volumes of RURAL AFFAIRS, (sent post paid for \$1 each,) than in any other work of equal price.]

BLOOD SPAVIN.—Seeing an inquiry from Bath, Me., for a cure of the blood spavin, will you please publish the following remedy that with me has always effected a cure if timely applied, and on a young horse. If the spavin is of long standing it is very difficult to effect a permanent cure. Take the root of the poke weed (*Phytolacca decandra*); cut it in thin slices, and boil it in urine till soft; with this decoction bathe the affected part once or twice a day till a cure is effected, rubbing the swelling quite hard, downwards, with the hand or any other smooth substance. It should not be so strong, nor so frequently applied, as to remove the hair. If the poke weed does not grow in the neighborhood of the inquirer, we will send him a few roots by express if he will direct where to send them. WILSON DENNIS. *Applebachville, Bucks Co., Pa.*

ICE HOUSES.—I saw something about ice houses in one of the nos. of CO. GENT. I have one made two years ago, 16

feet deep and 16 feet in diameter, perfectly round, made of stone, plenty sand at the bottom to take off all water. I filled it last winter with snow ice, (best I could get,) just threw it in without placing it and covered with straw, (put straw at the bottom on rails first,) none on the sides, and we have used ice and plenty left yet. W. HALL. Carroll Co., Ky.

CALLANAN'S DITCH-DIGGER.—I see an article in the July CULTIVATOR, p 224, on "Cheap Draining." Will you have the kindness to describe the implement used, and the probable cost laid down here, being 14 miles from railroad, and whether it can be used to advantage on much land, and stoney hardpan bottom? I use stone for forming the drain—want to cut a ditch 18 inches wide, 3 feet deep. Please also to inform me the manner of applying the power. J. C. ELLIS. Frost Village, C. E. [The implement alluded to, was described in THE CULTIVATOR for May, p. 148, to which we refer our correspondent for all the information he asks for, with the exception of the price, which he will find advertised in the July no., p. 230.]

CLEANSING WOOL.—I wish some of your subscribers to give through the columns of THE CULTIVATOR, the best method for washing wool after it is clipped, how to cleanse it and get the gum and dirt out without injuring the wool, and prepare it for carding into rolls. It will be of great benefit to the good ladies out west, for many of them know nothing about preparing wool. Also the best method to wash the cleanings of cards, as they are greasy and pull up dirt. I wish to know how they may be cleaned to card again.

Henrysville, Ky.

D. M. FOULKS.

EDITORIAL CORRESPONDENCE.

PROVINCIAL EXHIBITION OF UPPER CANADA.

The grounds upon which the Show was held are within the city limits, although nearly a mile, perhaps, from the central hotels. They comprise eighteen or twenty acres admirably adapted for the purpose, although neither regular in outline nor level in surface. A broad graveled walk leads from the main entrance, which was arched over and appropriately ornamented with evergreens, to the "Crystal Palace," standing at the head of a gentle rise upon an altitude sufficiently great to be seen at a considerable distance to good advantage. The actual cost of this building alone, I was informed, was fully \$12,000.

Of the contents of the Crystal Palace I must speak cursorily, except as to the fruits and grains, which deserve particular mention; they included a general show of manufactured products, considerable machinery, musical instruments, quite a fine art collection, models of various kinds, artificial manures, &c., &c., all in sufficient numbers to convey to a stranger like myself, on his first visit to this part of Canada, a most favorable impression of its home resources and advancement in the useful and ornamental arts. On the western section of the ground floor, the display of garden vegetables as a whole, was certainly one of the best I have ever seen, if others may have surpassed it, in some particulars and perhaps also in mere extent. To the north were the dairy products, of which, both butter and cheese, the exhibition was very fair.

The GRAINS, however, as just intimated, and to which we are now coming, must be classed among the half-dozen prominent features of the Exhibition, in any and all of which I cannot but regard it as comparing most creditably with any Show I have ever seen. As to extent, an idea may be obtained from the following summary of the principal entries:

Best two bushels of Winter Wheat.....	83 entries.
Best two bushels of Spring Wheat.....	84 do.
Best two bushels of Barley.....	74 do.
Best two bushels of Rye.....	21 do.
Best two bushels of Oats, white 53, black 19—total.....	72 do.
Best two bushels Field Peas.....	79 do.
Best bushel white Field Beans.....	29 do.
Best two bushels Indian Corn, white 25, yellow 40—total.....	65 do.
Best bushel Timothy seed.....	60 do.
Best bushel Clover seed.....	17 do.

But more striking than all this, were the thirty-two en-

tries, each of twenty-five bushels Winter Wheat, competing for the Canada Company's prize of \$100, offered in the following language:

For the best 25 bushels of Fall Wheat, the produce of Canada West, being the growth of the year 1860. Each sample must be of one distinct variety, pure and unmixed. The prize to be awarded to the actual grower only of the Wheat, which is to be given up to and become the property of the Association, for distribution to the County Societies for SEEDS.

This liberal premium was wisely supplemented by the Association with four others, respectively of \$50, \$40, \$30 and \$20, the winner of the first only being called upon to give up his wheat, but all required to furnish the Secretary with a written statement of the nature of the soil, mode of preparation, the variety and quantity of seed, and time of sowing, manures, (if any used,) produce per acre of grain, and any other particulars of practical importance, before being paid the amount of premium.

As to quality, it is difficult to imagine how it could have been much better; probably no premium was taken by any sample weighing less than 63 or 64 lbs. to the bushel, while I was told by one of the Judges that the weight of the first prize sample of two bushels was 66½ lbs., while that of the whole twenty-five bushels shown, in one or two instances, averaged throughout over sixty-five lbs. per bushel. The crop has this year, as may be imagined from the above, been an extraordinary fine one in some localities; one farmer standing by stated that in his vicinity he believed that 40 bushels per acre would be no more than the average yield, while he personally knew of instances in which fifty-two had been obtained. Whatever allowance may be required for this, as an exceptional case, it is enough to indicate—like one or two other matters to which I shall refer in due time—that our best farmers will have to look to their laurels.

The FRUITS which, with a less extensive assortment of Flowers, constituted the most ornamental and striking display in the Palace building, represented excellently well what I suppose to be the best Fruit region in Canada—that lying between the two lakes, Ontario and Erie, especially that part of it more immediately adjacent to the northern shore of the latter, while, indeed, it is probable that through a great part of the two counties of Lincoln and Haldimand, fruit may be cultivated to better advantage than in any other part of the province of equal extent. I do not wish to appear invidious in the mention of names among so many that were deserving of particular notice for beautiful assortments, but I could not forbear particularly remarking the complete and handsome lot presented by our correspondent, D. W. Beadle of St. Catherines, from his father's nurseries at that place—including 80 varieties of Apples, 30 of Pears, 10 of the Peach, grown in open air, 10 of Grapes, with a collection in jars of preserved small fruits—and I make this mention the more readily because I availed myself of Mr. B.'s experience to obtain for the benefit of our readers in that region, a list of sorts which are found to be most successful in its climate and on its soils, for practical purposes, including general hardiness, productiveness and superior quality. For example the 20 sorts of Apples selected by him, with all these considerations in view, were these:

SUMMER APPLES.

Early Joe.
Bough, Large Sweet.
Early Harvest.
Primate.

AUTUMN.

Duchess of Oldenburg.
Gravenstein.
Jersey Sweet.
Snow Apple or Fameuse.

WINTER.

Baldwin.

Hubbardston Nonsuch.

King of Tompkins County.

Northern Spy.

Pomme Grise.

Rhode Island Greening.

Ribston Pippin.

Roxbury Russet.

Seek-no-further.

Talman's Sweet.

Norton's Melon.

Wagener.

This list, it will be noticed, contains many of our old favorites with a few kinds of more recent introduction. A dozen sorts of Pears, which generally succeed well with him, are the

Madeleine,
Osband's Summer.
Beurre Giffard.
Bartlett.
Buffum.
Beurre Boe.

Belle Lucrative.
Flemish Beauty.
Seckel.
White Doyenne.
Beurre Diel.
Easter Beurre.

The Bartlett, however, suffers in some localities from the extreme cold which occasionally prevails.

But our time is limited and we shall see nothing of the Live Stock unless we abandon at once the charms of Pomona. I said there were half-a-dozen prominent features of excellence in the Show, and if the Grains and Fruits were entitled to rank among them, not less so is the display of Cattle throughout, and that of Sheep in the classes of Cotswolds and Leicesters. I say nothing of the Horses, for beyond one or two good specimens of the heavy English dray horse, I saw none of them; and, as to the Swine, it may be added in few words that the Show was a respectable one, without anything particular to attract attention unless it was some pens of Imported large breeds, which were almost constantly surrounded by an admiring crowd. I was indebted to the kindness of Mr. Secretary THOMSON for the privilege of ascertaining from the Society's books that there were about 700 Sheep on the ground, and that the Entries of Cattle in their respective classes were as follows:—

Short-Horns (Durhams).....	58 entries.
Devons.....	160 "
Herefords.....	30 "
Ayrshires.....	86 "
Galloways.....	42 "
For best bull of any age or breed,	21 "

Among the Short-Horns, some were entitled to praise as really first class animals, and the range of merit throughout was above the average, while here in some degree, and still more among the Devons, not only does the contribution by so many different exhibitors to make up the show, speak well for the distribution of improved stock in the hands of the farmers of the country, but the excellence of the young animals bred from imported parents also proves that the breeders are working well for the interests of the herds they are rearing.

It is an unpleasant task to call in question the decision of appointed judges, and one that I am never disposed to undertake; for, if minor differences of opinion are to be canvassed at length, we should have room for little else. But among the few prize cards that had been distributed when I made the rounds of the stalls, there was one instance of gross misjudgment which I do not think it just to pass by. Mr. Frederick Wm. Stone of Guelph, exhibited, among other Short-Horns, the imported cow "Desdemona," bred by Mr. Ambler, of which I am saying a great deal, but not too much, when I add that not half a dozen of the cows ever imported into this country would care to compete with her before any intelligent judge, notwithstanding which fact she was placed third to a first and second, one of which latter was just a nichish sort of beast, and the other could scarcely have come out ahead among some high bred grades I have seen at our shows. As consolation, Mr. S., however, took the herd prize in which this cow, "Desdemona," was included, together with the bull "3d Grand Duke," of his own breeding, the cow "Eugenia," also imported from Ambler, and a pair of heifers that were very sweet and pretty. The Millers, John Snell, and others, were prominent among exhibitors, but I should scarcely venture to name any for the reason that so few of the cards, from which alone they could be had, were given out when I took my last look.

The Devons, as will be seen from the number of entries, were out in large force, and this, together with the excellence of many, gave the breed some prominence over others. The Galloways showed an evident gain in public opinion, and I cannot but renew the opinion I expressed in writing from Scotland last year, that they are well worth more attention than we have ever given them. I should regard the display of them here as a very fair one—the aged stock showed good size in several instances, straight and tolerably even contour and good "quality," while among the young things there were one or two promising even better.

What can I add, with regard to the sheep, to what has been already said? Mr. Stone, who has just returned from England, has imported recently over 50 head of Cotswolds. He was exhibiting about 40 out of his flock, upon which he had altogether 14 prizes. He also showed a pen of South Downs, two imported and two of his own breeding, that were very nice. The entries of Leicesters alone were 76 in number, including among them many that I should be glad to notice at length, and the Cheviots formed a class

seldom seen in our show-yards, but one of which I may repeat what was just said of the Galloways, that they deserve to be better known.

The show of POULTRY was large, the coops admirably arranged as regards the comfortable examination of their contents, and the long range of roofing under which they were sheltered was constantly crowded.

Among the implements no visitor could fail to notice the number and variety of CULTIVATORS that were exhibited, and connected with this fact may be mentioned a second, namely, that the show of Roots—although a gentleman assured me that they had had more and better on some other occasions—was certainly among the very best that I have ever seen, including particularly Long Red and Yellow Globe Mangolds, Sugar Beets, Swede Turnips, and Yellow Aberdeens. The show of Potatoes was also very large and admirable.

It is in this matter of sheep, roots, and implements of tillage, that we "Americans" might profitably study the example of those of our brethren in Canada West, who have brought into the practice of colonial cultivation some of the best ideas of the old country farming. My friend above alluded to had 40 acres of turnips and rape on his farm, the latter for sheep feed during August and September when grass is likely to be short, and he represented this attention to roots as no unusual thing in his district of country. Over twenty-five years experience in this country had only served in his case to strengthen that very peculiar British prejudice in favor of ample manuring through the agency of the farmer's sheep and cattle, which seems most singularly to have melted away under the free and enlightening influences of republican agriculture. I cannot pursue the subject, but I shall hope sometime to have the opportunity of examining more closely the farming, of which such roots, and sheep, and cultivators, are the emblems, for they, as well as the crop-reports of which I have above given an example, savor more strongly of the principles and the success of "English Agriculture" than anything I have seen for just about a twelve-month past.

As one draws to its conclusion a letter like this, which must be mailed, whether ready or no, at a certain hour of the clock, many things press forward upon the mind, for which room can scarcely be found in pen and ink. Among matters especially demanding notice is the public spirit with which Hamilton, in common with several other Canadian towns, has come forward in support of the great interest on which, more than any other, the prosperity both of that country and of ours, is dependent—its agricultural improvement.

The total amount expended upon the grounds and erections here, of which I cannot make room for a fuller description, was stated to me at \$35,000, including the Palace building—\$22,000 of which, if I understand rightly, is appropriated by the city authorities. The buildings are permanently erected, and with great perfection, convenience and completeness; there they stand for the use of the local society, and for other purposes, with each recurring year, and for the Provincial Association as it alternates from place to place, perhaps once in three, four or five years. The grounds are like a park, and may be regarded one for all practical purposes. It seems to me that we shall have to revert to some such system on our side the line, sooner or later; the example of public enterprise shown in this direction by our Canadian neighbors is particularly worthy of remark, for the expensive system of annually fitting up structures which the demand of exhibitors compels us to make more and more costly with every year, is one that often bears unequally upon private generosity, while, at the same time, there are so many advantages which may result in other directions from the possession of complete and permanent erections, that it seems legitimately a matter coming within the range, as they have there regarded it, of some decided action on the part of our State or local authorities.

L. H. T.

Mrs. JAMES HALL of this city, will please accept our thanks for fine Bartlett Pears, as well as for similar polite attentions heretofore.

HARVESTING CLOVER SEED.

Some hints on harvesting clover seed may prove valuable to the farmer—but first, a few items in regard to growing it. A rich soil and favorable season are required to produce a large crop. The first growth is mown early—as soon as fairly in blossom—for hay; leaving the second or after growth to go to seed, as it is usually less rank and better filled than the first. Sometimes, however, both the first and second growth may blossom largely and yet produce very little seed—from some cause not well understood. It is said that the application of plaster to the clover field in spring will secure a better yield of seed from the second crop, while a direct application after mowing the first growth is found to increase the rankness of the hay at the expense of the filling of the heads with seed.

Clover seed should be harvested as soon as sufficiently ripe, and we would only wait until two-thirds of the heads were brown before commencing the work. Early cutting generally gives better weather for curing; there is less loss of seed from the shelling out of the earliest, best filled heads; and the straw is of greater value as fodder for cattle than if allowed to stand until the whole is dead ripe. Besides, the later ripening heads, for which we wait, really have little value, being poorly filled with seed.

The best implement for harvesting is a reaper—the grain platform attached, with a board at the back edge to retain a larger amount of clover—when full to be pitched or raked off in heaps. If clover stands well it may be cut high; it saves time in curing and labor in handling, and leaves the dryer portions of the stalk upon the field. As soon as fairly dry, it should be drawn to the barn, as it cannot be secured in the cock against rain. When spread out, however, as when left in the swath, or in small gavels from the reaper, it is little injured by rain, though heavy storms may wash off a portion of the seed.

In cutting with the scythe, we may turn two swaths together to facilitate the work of raking. With good weather it will be cured sufficiently to draw in the second day after cutting; if not, it may be raked, when slightly damp, into small bunches, or pitched together with a barley fork. Care in handling is requisite to prevent loss from the dropping of the heads, and, from the stiff bush-like character of the straw, it may be placed in the mow in a greener state than hay or grain without injury. The moisture should be dried off, but an occasional juicy stalk will do no harm.

The seed can be separated from the straw with a common threshing machine cylinder, having a long shaker or box full of holes attached, so that the heavier part of the chaff which contains the seed may fall through. This work is best performed in freezing cold weather, when no dampness is present in the seed or air. To get the clean seed, a clover huller is employed—a machine which rubs the seed from the chaff, which is passed through it again and again, until the separation is complete. Wherever the crop is much grown, there are farmers who make it their business to go from barn to barn with these machines—threshing, hulling, and cleaning the seed at a specified price per bushel, usually about one dollar.

If grown only in small quantities for home use, clover seed may be threshed with flails, or trodden out with horses, and sown in the chaff, which is full as certain to "catch," and perhaps more sure than that cleaned so nicely. Still it is difficult to regulate the quantity as closely, or distribute as evenly, as with the clean seed, but by putting it on liberally one may be sure of a thorough seeding.

Though as a general rule "farmers should raise their own grass seed," we question the policy of taking repeated crops of seed from every clover meadow—believing the practice to tend rapidly to the exhaustion of the soil. An occasional crop may be allowed, but very often the hay would prove of more value than the seed obtained, considering the comparative labor of securing, and effect upon the soil.

[For the Country Gentleman and Cultivator.]

CULTURE OF THE STRAWBERRY.

MESSRS. EDITORS—Having numerous inquiries about my "strawberry patch," as to soil, cultivation, &c., allow me a little space to answer them. The soil is a loamy gravel, with porous subsoil, and has only been worked twelve to fifteen inches deep with a plow. Ten years ago it was occupied by fruit trees, which were removed to make a garden, and was occupied as a vegetable garden till two years ago last fall. I set out thirty plants of strawberry (Wilson's) on a small part of it. One year ago last spring the remainder was set also, three rows on the bed which is bounded by my gravel walk on one side and an open drain on the other, which carries the slop water from the kitchen.

The land is only in fair condition—has had no manure since I first began to put out the strawberries. The plants have run and covered the ground, but have been taken out where they were too thick, but I did not make them quite thin enough to allow room for picking, which I think is best.

But the secret I think is, that my well is but a few feet off, and the bed was supplied with one to two barrels of water daily from a hand sprinkler. The first carried to market was June 4th, and we had a supply for the table over four weeks from this bed.

The manure used while raising vegetables was barnyard and muck.

Since done picking in July, I mowed off the old vines close, and with a spade turned under all but three rows eight to twelve inches wide, which are now covered heavily with a new growth of leaves. I forgot to say I put about half a cord of tan bark on this bed last spring.

Some one once said (I think Mr. Pardee,) that "a lazy man could not raise strawberries," and acting on this, no weeds have been allowed to get a foot-hold. No special fertilizers have been used. A. S. Moss. *Fredonia, N. Y.*

[For the Country Gentleman and Cultivator.]

To Exterminate "Iron Weed," &c.

MESSRS. EDITORS—In reply to your inquiry on this point, for the benefit of P. D. Bullitt Co., Ky., I would state as my experience, that "iron weed," and many other pests to Kentucky woodland pastures, can be easily eradicated in a few years, by systematic cuttings twice a year before the ripening of their seeds. As akin to this, I will add that locust or other tree sprouts, infesting either pastures or cultivated lands, may be destroyed most easily by cutting one or two years successively, in the latter part of August.

Perhaps it would be well to suggest to your correspondent, W. A., Iowa City, in default of a *certain remedy* for "foundered stock, which may get into a cornfield and eat too much," that the prevention of that occurrence by good fencing and selling or confining breachy stock is entirely practicable. T. B. *Woodvine, Ky.*

[For the Country Gentleman and Cultivator.]

PICKLED PLUMS.

Seven pounds of plums—4 pound of sugar—1 quart of vinegar—1 ounce of cloves—1 ounce of cinnamon.

Boil the vinegar and sugar together, and pour them over the plums, three mornings in succession. The fourth morning put them all over the fire—simmer but not boil. Lay the spices in layers with the plums before the vinegar is poured on.

Cucumbers.

Take 1 gallon of molasses, and 2 gallons of water, and pour over your cucumbers, and in three weeks you will have good pickles.

Tomatoes.

Take green tomatoes, slice them, scald in salt and water with the addition of a little alum, until they begin to be tender; skim them out, and put them in a stone jar. Take enough good vinegar to cover them, and to every quart add one pound of sugar and spices. Scald them and pour over the tomatoes hot. S. M. H. *Alburgh, Vt.*

THE CULTIVATOR.

ALBANY, N. Y., OCTOBER, 1860.

During the past week we had the opportunity of spending a day at the Agricultural College Farm at Ovid upon Seneca Lake. The transverse wing at the extreme south and the longitudinal wing which connects it with the site of the central Building, are now completed, and will be furnished in the course of the coming Autumn; the former, 60 by 84½ feet, and four stories in height, and the latter of three stories, 58 feet by 128—the two calculated to accommodate from one hundred to one hundred and fifty students, with apartments in the basement for temporary use as recitation rooms, etc., which are designed subsequently to find place in the central erection. The provision for thorough ventilation is remarkably complete; and the arrangements for heating, by means of warm air, and for lighting with gas, will probably prove economical as well as conducive to health and comfort.

We understood it to be the determination of the Trustees to open the Sessions of the Institution with the Winter Term, the first of December next. Major M. R. PATRICK, the President, will soon have a circular ready with full information as to the Classes for which Students will be received, the Text books decided on, the additional Instructors appointed, together with such other particulars as may be required, which may be had by addressing him at Ovid, Seneca Co.

The location upon the lake is a pleasant one, and is more accessible than many have supposed—the lake remaining unfrozen in winter, so that the Ovid landing may at any season be reached by steamboat from Geneva in about two hours, or from Jefferson at the head of the lake in a little longer time, from which latter point there is railroad connection with the Erie line and all its numerous branches. From the village of Ovid, which the College Farm adjoins, there is a fine view of Cayuga Lake, some miles to the eastward, and ready access may also be had, if desired, by various means of communication in this direction.

From Ovid we proceeded to Elmira, where, in the midst of a driving rain, we found the grounds allotted for our next State Fair as dry and hard as possible, their gravelly soil being capable of any extent of saturation without becoming muddy. The buildings are now well under way, and the promise of attendance from "the southern tier," from Pennsylvania, and from our western counties, we were assured was very large—so much so, that probably the full capacities of the place will be taxed for its accommodation, although Elmira is well provided with hotels, and is said to contain a population of eleven or twelve thousand by the census of the present year.

Returning home by way of Rochester, we found over the whole area embraced in our inquiries, a reported Wheat crop, perhaps fully equal to the large yield of 1859. Major DICKINSON assured us at Elmira, that the yield per acre was actually proving *five bushels larger* than anticipated, throughout the central and western portions of the State, so favorable has the season been to the production of plump grains and full ears. As to Oats, we were rather surprised to find so large a quantity all along our route, still exposed to the weather, much yet uncut, and some that had apparently been already "kept out in the wet" for many showery days. This crop is said to be large, notwithstanding the loss that must have thus been occasioned. Corn is generally late, but, without frost next month, will probably turn out pretty well. The Orchards appear to be wonderfully productive through all Western New-York. Near Ovid we remarked an old garden of plums hanging as full of fruit as though that millennium had already arrived when the curculio shall no more ravage and destroy; and all about the City of Nurseries we were told that plums, pears and peaches, as well as apples, will be un-

usually abundant and perfect. At Rochester we regretted having no more time to visit our Horticultural friends, who seem, from all we can learn, to be thriving most satisfactorily on the growing public appreciation of fine fruit, and taste for ornamental trees and plants.

The Potato Rot is everywhere beginning to show itself quite plainly—the tops in some fields being already entirely gone. The few who have thus far escaped its attacks, will have to regard it we fear as only a question of time, for the weather still continues of precisely the kind best adapted to promote its extension.

THE WHEAT CROP AT THE WEST.—All accounts represent the wheat crop in the Western States as much larger than was anticipated. As samples of what we find in our western exchanges, we quote the following:

The Ottawa (Ill.) Free Trader of Aug. 18, says—"The wheat harvest in this region presents the singular feature of turning out much heavier when the wheat comes to be threshed than was anticipated. It is a very common remark among farmers, that where they anticipated a yield of 20 bushels to the acre, it has gone up to 30 or 35. 30 and 40 bushels to the acre are indeed very common in the county. Mr. Wm. Powell, Somonauk, had out seven acres of wheat. It looked well, and he counted on 30 bushels to the acre. He threshed it and found the yield 327 bushels—nearly 50 to the acre! Instances like this are indeed quite common all over the county."

The Maquoketa (Iowa) Sentinel of August 16, says; "Mr. George W. Bowman threshed for Mr. Seymour Day, one of our farmers, who sowed last spring twenty-four bushels of wheat upon sixteen acres of ground, and harvested 650 bushels; making just 40½ bushels to the acre."

The Wabashaw (Minnesota) Journal says: "The yield of wheat is so large in some localities of Minnesota, that owners of threshing machines are offering to thresh out the product of some fields for the excess over thirty bushels per acre. The usual rate is one-tenth. They are calculating on a yield of over thirty-three bushels per acre."

CORE FOR LAYING CEMENT PIPE.—A correspondent in Connecticut, Mr. LEVI S. WELLS, contributes for the Co. GENT. his experience with a new Patent Core, the use of which he thus describes:—"The aqueduct is made by using a bag or core of rubber cloth, which being inflated with air, is laid upon a coating of cement mortar in the bottom of the ditch, and then covered with mortar, and left a few moments to set; when the air is let out of the core, and it is drawn out, leaving a nicely formed aqueduct, having a caliber of one, two, or more inches—depending upon the size of the core used—then, proceeding again as before, and forming one continuous pipe without joints, of any desired length. A man with help to prepare the cement can lay from ten to twenty rods a day." He also commends this kind of pipe in very high terms—more so, in fact, than we should care to publish, except as the result of a longer and more complete trial of the pipe laid, as well as of the invention referred to.

SEEDLING PLUMS.—We have received from C. REAGLES & SON of Schenectady, specimens of a new seedling plum from the seed of the Washington. It is large, slightly oval, (rounder than its parent,) full and obtuse, yellow with carmine dots on the sunny side, flesh rather coarse, "good," and adhering strongly to the stone. On tasting it with specimens of the Washington, we think it hardly as good as the latter, yet it has hardly had a fair chance, having been sent over two hundred miles of railway. A single examination is insufficient to enable any one to decide satisfactorily on the character of a new fruit.

MORE OF MY EXPERIENCE WITH HAY CAPS.—I wish the Co. GENT. "to keep them before the people"—here are a "peculiar institution" for a wet climate or rainy weather. I have 160 caps, and no doubt but that they have paid all they cost, during this season of haying and harvesting, to say nothing of the three past years they have been in use, and the future benefit to be derived from them. If I can only get my wheat cut and set up in good order, under caps, my anxiety dwindles to nothing—if it

rains, why let it rain—I generally go into the house in such weather, and read the *GENT.* I have had wheat under caps out in the hardest showers we have had, without being wet in the least, except around the outside at the foot of the bundles. When the caps were taken off, the heads were as bright as though no rain had fallen. One cap will cover twelve bundles snugly—but enough. J. L. R.

[¶] That good will often arise out of evil, is a saying none the less true because it savors so strongly of antiquity. A New-Jersey friend and subscriber of the *COUNTRY GENTLEMAN* affords us an illustration quite in point. One of his neighbors, while at work with the Mowing Machine, leaves the seat to disentangle a tuft of grass from among the knives; the dinner-horn inopportune sounds, and the horses start suddenly forward, catching and cutting off the fingers of the unfortunate man. The incident is naturally mentioned at our friend's dinner-table, and his wife at once suggests that all farther danger from this source may easily be obviated, and after some study of the machinery involved, actually designs and patents what seems to us a mode as effectual as it is simple, of rendering the occurrence of similar accidents hereafter next to impossible. This is a method of *throwing the knives out of gear the moment the driver's weight is removed from his seat.* Of course as soon as he resumes his place again, the cutting apparatus is ready for operation, and the patent taken out covers the ground of operating by means of the driver's seat—an idea, *now that it has once been thought of,* so very natural and advantageous that we can only wonder that it never before occurred to any manufacturer or owner of these machines.

It is through the unexpected movement of the horses when the driver temporarily leaves his seat, that nearly all the numerous accidents have been occasioned, of which we frequently hear through the papers in connection with the use of Mowing and Reaping Machines, and we cannot hesitate in expressing the opinion that Manufacturers owe it to their thousands of patrons at once to adopt so easy a safeguard against risk of injury, if not of loss of life. There is now time before the machines of another season are put into the market to bring about this most desirable result. Burlington, N. J., is the residence of DILWYN SMITH, who may be addressed at that Post Office upon the subject of the invention, which farmers owe to the ingenuity of his lady, Mrs. ELIZABETH M. SMITH.

[¶] The New-Jersey State Fair at Elizabeth, last week, appears to have been well attended, and in many respects an excellent show. The fear of exposing Cattle to some complaint which caused the death of several animals near Newark, early in the season, induced the managers to forego this part of the exhibition. The number of Entries is this year stated as follows, exclusive of the entries for special horse premiums:—

- Class 1. Cattle—no entries.
- Class 2. Horses—26 entries.
- Class 3. Sheep, Swine and Poultry—37 entries.
- Class 4. Farm products and Horticulture—289 entries.
- Class 5. Home products—126 entries.
- Class 6. Mechanical, etc., 325 entries.

This presents an aggregate of 1,133, while last year, cattle and all, the total number was scarcely 1,000.

EARLY MAY WHEAT.—The Early May wheat received last fall from the south has done remarkably well with us. It did not appear to suffer more from the changeable weather the latter part of last winter and early spring than the other varieties of wheat in this locality. It was not hurt with the fly in the least, (though the Mediterranean suffered much in places,) nor did the wheat midge destroy a single head. The straw was clean and bright, and grew about five feet high. The season of its ripening was about eight days before the Mediterranean. The grain is full and plump. Should it continue to succeed as well as last year, it would no doubt be a great acquisition to the wheat growing district, as it will ripen before the season of the wheat midge, often so destructive to other and later varieties of wheat. WILSON DENNIS. Bucks Co., Pa.

GRAPES ON KELLY'S ISLAND.—Grapes are a full crop here this year so far. There will be some 63 acres in bearing this year. About two-thirds Catawbas—the balance

mostly Isbellas. The Delaware and Concord look remarkably well. The two seedlings, Lydia and Mottled, that Mr. Carpenter has taken premiums on the last two years at the Ohio State fairs, have improved very much this year in the size of the bunches—the Mottled has begun to turn berry two weeks earlier than the Catawba; the bunches are more compact than the Catawba, and may prove in quality fully equal to Catawba.

There has been over 100 acres set to grapes on the Island this year. There are 2,800 acres of land, and 234 of it is now set to grape-vines—average yield per acre for the last fifteen years, 600 gallons of wine. K. A.

PRODUCTIVE STRAWBERRY BED.—I have a "strawberry patch," a part of it set one year last spring, and the rest two years. It is seven feet by one hundred and fifty-three feet. I picked and sold from it the present season, 457 quarts of strawberries (or 14 bushels and 9 quarts.) Wilson's Albany is the kind, and though they require a little more sugar than some other kinds, they give you enough more fruit to pay for it. Fifty berries (selected of course) would fill a quart measure. A. S. Moss. *Fredonia, August, 1860.*

[¶] The weather on Wednesday last—the Sale day of the "Albany County Breeding Association" was extremely unpropitious—not only a constant rain, but a cold one, and neither rain nor cold in moderation, but both of that persistent and penetrating November kind, when of all times barn-yard scenery is least attractive, roads the muddiest, and fireside shelter the most enticing. A few gentlemen from a distance, who by no means anticipated so cool a greeting, and those in the neighborhood whose interest in the stock offered or friendship for its owners, was proof against storm and tempest, assembled to see what could be done under the circumstances; and, after the erection of a stove in the lunch-room had secured the comfortable partaking of that repast, clustered about under the dripping sheds to hear the auctioneer invoking vainly animation and enterprise from the shivering audience of which they were members. If the weather was *for-bidding*, it soon proved that *they* were not; and at the outset the whole would probably have been postponed, but for the desire that the non-resident part of the audience should at least have the opportunity of purchasing whatever might be called, by them or others, into the ring. Thus it came about that Mr. BATHGATE of Westchester county, purchased "Mary Blane," a trotting mare of some note, for \$300; Mr. ROBINSON of Georgia, the brood mare "Albany," for \$250; GEO. CHARLES of this city, the imported Short-Horn cow, "Flattery," for \$250; Mr. TROWBRIDGE of New-Jersey, the cow "Bloom," for \$75, and Mr. J. V. MOORE a pair of Devon Working Cattle for \$170. Subsequently the Ethan Allen brood mare, "Rose Allen," and the colt of the mare "Caroline," by American, were sold to Mr. Bathgate at private sale, the two for \$500, and there may have been one or two other private sales.

Thus the majority of the stock, the chief Short-Horns, all the fine Devons offered by Capt. HILTON, and a large part of the Horses, remain to be disposed of, and the day now appointed is the 10th of October, at 11 a. m., when we hope to see a larger gathering under more favorable auspices. The Catalogues, meanwhile, are well worth the examination of all who are interested in the subject, and for the convenience of applicants we subjoin the names of the members of the Association:—William M. Bullock, Bethlehem; Joseph Hilton, New-Scotland; William H. Slingerland, Norman's Kill; William Hurst, Albany; Geo. W. Adams, Whitehall.

LARGE APPLES.—Mr. H. WETHERWAX of Sandlake, informs us that he recently picked by hand 2,250 apples (Pound Sweets) in about four hours. These apples, which included all on the trees, large and small, with the exception of half a dozen defective ones, filled nine barrels, thus averaging 250 to the barrel. One of his neighbors, Mr. J. SIPPERLY, made a selection from the largest of these apples, and found, on counting, that 170 filled a barrel.

PEACH TRADE AT ROCHESTER.—The Rochester Union estimates the amount of peaches shipped from Rochester at sixty tons per day. It says: "On Saturday the New-

York Central Railroad Company sent eastward as freight 2126 bushels of peaches, making seven car loads shipped here, and there were ten cars put into the train, which were loaded at points along the Niagara Falls Road, and brought into the city. Five of the seven cars shipped from this city carried peaches for a single shipper."

THE VERMONT STATE FAIR opened well at Burlington last week Tuesday, with a pleasant day and numerous entries. We intended if possible, to have been present. Mechanics' and Floral Halls were well filled, and the track was open for some good trotting. Wednesday, as we learn from the Free Press, there was an extraordinarily good display of *umbrellas*, the storm experienced here having extended in that direction; Thursday, however, was bright and clear, and prospects were reported as "improving." Of Horses the entries numbered, on Wednesday, 246, divided as follows: Sherman Morgan Stallions 26, Mares 14; Woodbury Morgan Stallions, 28, Mares and Fillies 7; Bulrush Morgan Stallions 2, Mares 5; Hamiltonians and other blood 35; Matched Horses 32 pair; Geldings and Mares 78.

MESSRS. ELLWANGER & BARRY of the Mt. Hope Nurseries at Rochester, who have exhibited extensive collections of Fruit at all the principal Agricultural Shows this year, contribute a basket of fine pears for our private examination, to which we may assure them that full justice has been done in that way which we suppose to constitute the "chief end" of all Pomological specimens, however beautiful to the eye or interesting as curiosities.

THE UNITED STATES FAIR.—An anticipated letter with regard to this Exhibition having failed to reach us, we can only gather from the newspapers, that the attendance has been tolerable, and the Show itself in some respects a fair one. The Tribune correspondent, Mr. Olcott, speaks of the fruits and flowers as finally coming out pretty well; among the cattle, there seem to have been few breeders present of much celebrity, in most of the classes, but the Herefords are spoken of as excelling all the rest. R. A. Alexander exhibited South-Down Sheep.

We have been shown a new Silver Medal, struck off by Robert Lovett of New-York, for the Union Agricultural Society of Ridgeway and Shelby. It is enclosed in a neat case, also prepared by Mr. L., of an appropriate and tasteful design. The Society is entitled to much credit for providing this very appropriate testimonial for its exhibitors, and it can scarcely fail to increase their numbers.

ADDISON CO., VT.—The Fair of this County was held at Middlebury on the 5th—7th September and proved a complete success. The Address was delivered by Governor Chase of Ohio, after which there was a poem by Saxe, and a speech by Hon. E. P. Walton. Among the interesting features of the exhibition was a walking match by horses. Five were entered, and the prize was awarded to "Sam. Houston"—time for half a mile, 5½ minutes.

The American Pomological Society.

The eighth biennial meeting of this association was commenced at Philadelphia, Sept. 11—the President, Hon. MARSHALL P. WILDER, in the chair. About 200 delegates were present, representing 17 States.

The morning session was occupied in perfecting the organization, the appointment of committees, &c.

In the afternoon the address of the President was, as usual, delivered.

Following the address was the report of the committee on nominations, and an election for officers of the society for the next two years, which resulted in the choice of the following ticket:

Hon. MARSHALL P. WILDER, Boston, President.
Thirty-eight Vice Presidents, one from each State and Territory of the Union.

THOMAS P. JAMES, Philadelphia, Treasurer.

THOMAS W. FIELD, New-York, Secretary.

The place of holding their next biennial session was then taken up and debated at length. It was finally agreed to hold the next session in Boston.

ALBANY COUNTY FAIR.

There was quite a large show at the Fair of this Society last week, although by no means a general one, the number of exhibitors being small in proportion to the quantity of articles and animals exhibited. The display of stock, however, could scarcely fail to be attractive, which included such Short-Horns as Bullock, Slingerland and Hurst's; such Herefords as Corning's; such Devons as Hilton's, Whitbeck's and Conger's; Working Oxen and Steers like those of Van Wie, Booth, Loucks and Schoonmaker; such Long Wooled Sheep as Van Wie's and Soop's; South Downs like Corning's, Booth's, Bender's and Louck's, and Swine like Hurst's, Richardson's and others. There was a good lot of Poultry out, among exhibitors of which we recognize again the names of Van Wie, Booth and Hurst, together with those of Harcourt, Wendell, White and others.

The display of Fruit was unusually good; among contributors were E. Corning, Jr., A. W. Twitchell, John G. White, Wm. Gray, John Wilson, Philip Myers, W. H. DeWitt, John Dingwall, John I. Slingerland, Peter Van Wie, and so on, representing tolerably well both city and country growers. Flowers were mostly shown by Wilson and Dingwall. There was quite an exhibition of Vegetables, and several of our Albany Implement manufacturers combined to render the display in this department an instructive and valuable one.

The Society were indebted to manufacturers and merchants in the city for a fair turn-out in the miscellaneous departments, and to the ladies for a good show of Household manufactures, needlework, bread, preserves, &c.

Gov. Seward's Arabian Horses, which reached Boston on the 11th inst., were exhibited toward the conclusion of the Fair, but we failed to see them. The Boston Cultivator remarks on this subject:—

Instead of there having been two mares and a stallion shipped, it appears to have been just the reverse. Only one mare was shipped, and she died on the passage. The two stallions arrived in good condition, considering the necessary hardships of the voyage. One is a bay (the age not known to the writer,) the other a sorrel, four years old. The former appears to be a very strong and energetic animal, about fourteen and a half hands high, compact body, with a pretty good, though not what we are accustomed to call an Arab head, clean throat, short, but rather light neck, pretty well placed on the shoulders, deep and capacious chest, short and very strong back, wide loin, tolerably full stifle, and strong, well-placed limbs. The other did not strike us as particularly remarkable in points, though from his green age and the circumstances under which we saw him, we would not pronounce a positive opinion.

The weather was very unfavorable except toward the conclusion of the Show, and the Managers state in general terms that the receipts were "unsatisfactory." Notwithstanding the rain and mud, however, we were surprised to see so many in attendance on both days when we visited the grounds.

RUTLAND CO., VT.—The Fair, held on the 6th and 7th, proved to be all that its friends could have desired. The attendance was large, the receipts amounting to \$1,250. The Address was delivered by Hon. L. Chandler Ball of Rensselaer Co., Among the "attractions" was a balloon ascension by Prof. La Mountain, accompanied by a lady. On one of the evenings a "levee" was held, at which a succession of pertinent and happy speeches were made by Ex. Gov. Dyer of Rhode Island, Ex. Gov. Fletcher of Vermont, the Rev. Mr. Balch, and by Messrs. B. F. Winslow of Pittsford, and Charles E. Graves of Rutland. A poem "Humbug," was also read by Mr. Egbert Phelps of Middlebury.

GREAT YIELD OF WHEAT.—Jesse R. Yeomans of Indiana, writes to the Parke county paper that he has raised three acres of wheat this year which averaged sixty-four bushels and ten pounds to the acre.

CHEAP BULBOUS ROOTS, PÆONIES, ETC.

Wm. R. Prince & Co., Flushing, N. Y.,

Having a surplus of over 100,000 Bulbs, will supply them at lower rates than ever before offered. Applicants can send lists to be priced at the lowest rates, which will be returned by first mail. The new and extensive Catalogue of Bulbs just published, will be sent, and the Whole-sale Catalogue when desired.

Sept. 6—w&m2mt.

L O P - E A R E D R A B B I T S .

A few pair of young Lop-eared Rabbits may be had by application to the subscriber. Also

FANCY PIGEONS.

Carriers, Fantails, Pouters, Rufflenecks and Tumblers. Prices from two to five dollars per pair.

C. N. BEMENT,
Springside, Po'keepsie, N. Y.

S T R A W B E R R I E S .

50,000 Wilson's Albany at \$4 per 1000; 10,000 Jenny Lind at \$6 per 1000. Carefully packed in moss, and shipped as directed.

Aug. 30—w3tm2t.

D. S. HEFFRON, Utica, N. Y.

B E R K S H I R E S W I N E F O R S A L E .

AND A FEW

S O U T H D O W N S H E E P .

Sept. 20—w&m2mt. EDWARD WAIT, Walden, Orange Co., N. Y.

K I R T L A N D R A S P B E R R Y .

The subscriber is now prepared to fill either large or small orders for plants of this truly valuable red Raspberry, which has proved so hardy and productive wherever cultivated, as to entitle it to the very front rank as a market variety. It needs no protection in winter, bears profusely, is of fine flavor, and will produce a second crop of fruit in the fall. Price of plants \$3 per 100, \$20 per 1000. Also Lawton Blackberries, \$5 per 100, \$40 per 1000.

Sept. 20—w4tm2t.

H. B. LUM, Sandusky, Ohio.

C R A N B E R R Y P L A N T S — B E L L V A R I E T Y .

We have always sold genuine plants at less prices than any other grower.

New Rochelle (or Lawton Blackberry,) at greatly reduced prices. Hop Tree—very ornamental, and better for family use than the common hops.

Also, Hartford Prolific Grape, Early Hardy Prolific, and an excellent Wine Grape.

Concord Grape.

Bagley's Everbearing Raspberry.

All the above for sale in quantities, at lowest reduced prices.

Our Catalogue of prices, with Circular for the culture, soil and prices of Cranberry and Blackberry Plants, and Hop Trees, will be forwarded to applicants by enclosing a postage stamp to the New-Haven Nursery.

Sept. 13—w2tm2t.

F. TROWBRIDGE & CO.,
New-Haven, Conn.

G R A P E S ! G R A P E S !! G R A P E S !!!

Twenty varieties of the best hardy sorts for sale singly or by the hundred. Send stamp for priced Descriptive Circular.

Aug. 30—w3tm2t.

D. S. HEFFRON, Utica, N. Y.

L A W T O N B L A C K B E R R Y .

To obtain the original variety for field or garden culture, address

WM. LAWTON, New Rochelle, N. Y.

Circulars, with ample directions, will be forwarded to all applicants, free.

Aug. 1—m1mt.

S C H E N E C T A D Y A G R I C U L T U R A L W O R K S .

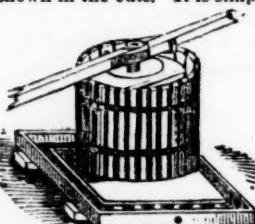
The proprietors of these works are now prepared to fill orders for their well known

Patent Horse-Powers, Threshing Machines, &c., and invite the attention of the public to them.

Important improvements have been made since the last season, which it is hoped will add to the already unequalled reputation of their machines.

To their former list of machinery they have added

Males' Patent Convertible Cider Mill and Corn Sheller, shown in the cuts. It is simple, efficient, and durable, possessing the



advantage over cider mills in common use, of being an excellent corn sheller, and its price no more than cider mills are usually sold for.

Important improvements in their Clover Huller and Cleaner have made it one of the very best in use. The following letter will give some idea of its capacity, when well managed in good clover.

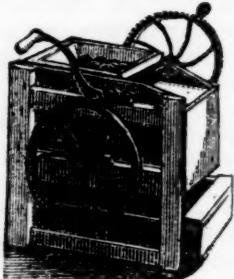
NORTH EAST, Erie Co., Pa., Aug. 24th, 1860.
G. W. & Co.—I have never written you anything about the clover machine since I got it. It gave good satisfaction. I rubbed and cleaned over 200 bushels, and it worked very nicely, doing the work well. I rubbed three bushels clean seed in 40 minutes, and could do from 15 to 23 bushels per day. I did for one man 34 bushels in less than two days.

VOLNEY BELKNAP.

A circular containing descriptions and price list of machines manufactured at these works, will be mailed to all applicants. Address

G. WESTINGHOUSE & CO., Schenectady, N. Y.

Sept. 27—w4tm2t.



G R A P E V I N E S ! G R A P E V I N E S !

Large stock of the most desirable sorts. Send for a Catalogue. The subscribers offer for sale a large and well grown stock of GRAPE-VINES at reduced prices, consisting of the following, and other good sorts, all propagated from genuine stock: Delaware, Diana, Concord, Hartford Prolific, Rebecca, Union Village, Anna, Logan, Oporto, &c. Also the older sorts, such as Isabella, Clinton, Catawba, and Forsyth. Sort for culture under glass, of best sorts. Two hundred acres of FRUIT TREES in large or small quantities. Greenhouse Plants, Hardy Border Plants, Bulbous Roots, Roses and Dahlias in great variety, Hedge Plants, Strawberry Plants, Raspberry of Everbearing, and other good sorts. Address

Sept. 1—w&m2mos.

W. T. & E. SMITH,

Geneva Nursery, Geneva, N. Y.

W M . R . P R I N C E & C O .

FLUSHING, N. Y.

Offer a more extensive and perfect collection in each Department of their business than ever before.

The following Catalogues will be sent to applicants who enclose stamps.

No. 1.—Catalogue of Fruit and Ornamental Trees and Shrubs, and all Small Fruits.

No. 2.—Catalogue of Roses and Flowering Plants, including Carnations, Chrysanthemums, Phlox, Iris, &c.

No. 4.—General Wholesale Price List for Nurseries.

No. 5.—Wholesale Price List of Vegetable and Tree Seeds.

No. 6.—Descriptive Catalogue of 160 Varieties of Strawberries.

No. 8.—Wholesale Catalogue of Native and Foreign Grapes.

No. 9.—Catalogue of Bulbous Flowers, Tree and Herbaceous Peonies, Dahlias, Primroses, Polyanthus, Auriculas, Cowslips, &c.

No. 10.—Wholesale Catalogue of the same.

No. 13.—Green-House Plants.

No. 14.—Descriptive Catalogue of 320 Varieties of Native and 120 Varieties of Foreign Grapes. We offer a great stock of all the leading varieties of Grapes, of which 80,000 are strong layers, and 25,000 in large pots.

Orders are executed and packed in a superior manner, forwarded according to instructions, and a transportation receipt mailed to the purchaser with the invoice.

Sept. 6—w&m2t.

G R E A T A U S T I N S H A K E R S E E D L I N G S T R A W B E R R Y .

T H E L A R G E S T S T R A W B E R R Y I N T H E W O R L D .

Amateurs consider this seedling the greatest acquisition to our small fruits ever introduced. A monster in size, wonderfully prolific, and of the finest flavor. We are now prepared to take orders to commence delivering plants in August in rotation as ordered. Address either

CHAUNCEY MILLER, Albany N. Y., Shaker Trustee,

Or WM. S. CARPENTER, 468 Pearl St., N. Y.

WE OFFER THE FOLLOWING CERTIFICATE.

We, the undersigned, having ordered largely of the AUSTIN SEEDLING in May last, with the assurance that our money would be refunded if not satisfied, after seeing the fruit beg leave to report, that we have visited Watervliet, the Shaker settlement, where the Austin is now fruiting. We found it growing in the most common way, in masses, and not in hills, without any particular care, and much injured by the drouth; yet the great productiveness and uniform large size and fine flavor, induces us to consider the AUSTIN as one of the best varieties in cultivation, and a great acquisition to our small fruits. We found the AUSTIN averaging larger than the Wilson's Albany, and about as productive; and from appearances will continue to fruit until the middle of July.

JOHN C. THOMPSON, Tompkinsville, Staten Is., N. Y.,

JAMES L. LOCKWOOD, Stamford, Ct.,

EDWARD BISHOP, Stamford, Ct.

Aug. 23—w6tm2t.

S T E E L P L O W S .

We are manufacturing for the spring trade large numbers of our Mohawk Valley Clipper Plows with steel mold-board and land-side, with steel or cast point, as desired, and would refer you to the following persons, who have them in use:

John Johnston, Geneva, N. Y.

J. Ingersoll, Ilion, N. Y.

Wm. Summer, Pomaria, S. C.

R. C. Ellis, Lyons, N. Y.

Col. A. J. Summer, Long Swamp, Florida.

A. J. Bowman, Utica, N. Y.

A. Bradley, Mankato, Minnesota.

F. Mackie, Utica, N. Y.

We are also manufacturing Sayre's Patent Horse Hoe and Potato Covering Machine, Sayre's Patent Cultivator Teeth in quantities for the trade; and all kinds of steel and swage work in the agricultural line. Send for a circular.

SAYRE & REMINGTON.

Jan. 26—wtf Mar. 1—mtf. Union Agricultural Works, Utica, N. Y.

T H E G E N E S E E F A R M E R .

E X T R A O R D I N A R Y O F F E R :

T H R E E M O N T H S F O R N O T H I N G !!

This old and popular Agricultural and Horticultural Journal is published at Rochester, N. Y., in the very heart of one of the best wheat and fruit districts in America. It has hundreds of practical and experienced correspondents in all parts of the United States and Canada. It aims to be the "Farmer's Own Paper." In its pages the farmers and fruit-growers of all sections interchange their views and record their experience. It costs only FIFTY CENTS A YEAR, and all who subscribe at this time will receive the remaining numbers of this year FREE.

Fifteen Months for Half a Dollar!

Send the Fifty Cents in stamps to JOSEPH HARRIS, Rochester, N. Y., or get one of your neighbors to join, and send a dollar bill.

Sept. 20—w4tm2t.

D O W N I N G ' S F R U I T A N D F R U I T T R E E S

Just Published, and for Sale at this Office—sent by mail, post paid, at \$1.75.

**THE ILLUSTRATED ANNUAL
REGISTER OF RURAL AFFAIRS.**

1861.

THE SEVENTH NUMBER of this attractive and useful Work is now nearly ready for the Press. We hope to have it out some weeks earlier than usual, and are now prepared to receive orders for single numbers or in quantity, which will be filled as soon as the REGISTER for 1861 is issued. The attention of OFFICERS of AGRICULTURAL SOCIETIES and others who propose attending Town, County or State Fairs this Fall is particularly requested to the ready Sale which may be had for the REGISTER during these anniversaries, and on other occasions, from the First of September even until another spring. TERMS—as heretofore: SINGLE COPIES, postpaid, TWENTY-FIVE CENTS; ONE DOZEN COPIES, postpaid, TWO DOLLARS; ONE HUNDRED COPIES, FIFTEEN DOLLARS, and larger quantities at a farther reduction.

PARTIAL ABSTRACT OF CONTENTS.

Among other valuable chapters, the ANNUAL REGISTER for 1861 will contain the following:

- I. WORKING MEN'S COTTAGES—Seventeen Engravings.
 - 1. Important Advantages of their Erection.
 - 2. Design for a Cottage of the Smallest Size.
 - 3. Design for a Cottage on a somewhat Larger Scale.
 - 4. Design for a Cottage of better class or for a small Farm House.
 - 5. Design for a somewhat more costly Cottage.
 - 6. A Design by L. B. Valk.
 - 7. A Design by J. M. Wade, with modifications.
- II. LAYING OUT GROUNDS—Five Engravings.
 - 1. Plan of a Village Half Acre Garden.
 - 2. Simple but Graceful Arrangement of Pleasure Grounds.
 - 3. Laying out a Western Farm.
- III. PRUNING AND TRAINING ROSES—Eleven Engravings.
 - 1. Tree Roses; two modes with figures.
 - 2. Weeping Roses.
 - 3. Pillar Roses.
- IV. NEW FRUITS AND POMOLOGICAL NOTICES—Twenty-one Engravings.
 - 1. Basket of Plums—Descriptions and Figures of 15 newer Sorts.
 - 2. Notes on Strawberries—Results of the Farther Experience of the Year.
 - 3. Pruning Dwarf Pears.
 - 4. Accurate Portrait of a Dwarf Pear Tree in Bearing.
 - 5. How to Obtain Fruit in New Places.
- V. STRUCTURES FOR GREEN HOUSE PLANTS—Ten Engravings.
 - 1. Construction and Management of the Cold Pit.
 - 2. The Conservative Pit.
 - 3. Ward's Cases.
 - 4. The Window Case and Aquarium.
 - 5. Translucent Paint for Glass.
- VI. DOMESTIC POULTRY—Thirty-three Engravings.
 - 1. Origin of Domestic Fowls.
 - 2. Descriptions at Length of the Different Breeds.
 - 3. Management of Poultry.
 - 4. Five Designs for Poultry Houses.
 - 5. Nests, Pens, Coops, Feeding Hoppers, &c.
 - 6. Diseases of Poultry.
- VII. WEEDS AND THEIR DESTRUCTION—Twenty-one Engravings.
 - 1. General Rules for their Prevention and Extirpation.
 - 2. Annual and Biennial Weeds.
 - 3. Simple Perennial Weeds.
 - 4. Creeping Perennial Weeds.
 - 5. Noxious and Intruding Shrubs.
- VIII. FILTERS, AND FILTERING CISTERNS—Five Engravings.
 - 1. Construction of Portable Filters.
 - 2. Another Plan for the Same.
 - 3. Filters attached to the Cistern.
- IX. AGRICULTURAL NOTES.
- X. HORTICULTURAL NOTES.
- XI. RURAL MISCELLANY.
- XII. DOMESTIC ECONOMY, &c., &c.
- XIII. ADVERTISEMENTS

This, preceeded by the usual Calendar pages and Astronomical Calculations, forms a book which is certainly cheap at its retail price, while the Publishers may especially call attention to the pithy and appropriate HINTS FOR THE MONTH which appear upon the Calendar pages, as embracing in the most concise form many valuable suggestions—to the article on WORKING MEN'S COTTAGES, for the neat and useful Designs it contains—to those upon ROSES and GREEN HOUSE Structures for their beautiful illustrations—to that upon POULTRY as the most complete chapter upon the subject yet presented in equal space, accompanied as it is by so many Engravings—and to that upon WEEDS and their Destruction, as presenting just the information which every Farmer requires, with cuts by which he can compare the most common and troublesome of these intruders, and appropriate practical directions how to get rid of them.

THE PUBLISHERS, with the view of rendering the circulation of the ANNUAL REGISTER for 1861, still wider and larger than that of any previous Number, are prepared, as above intimated, to offer the most liberal Terms for its introduction in quantities, either to Agents, Agricultural Societies, Nurserymen, Dealers in Implements and Seeds, or any others who take an interest in the dissemination of useful reading, and in the promotion of Rural Improvement.

Address all orders or inquiries to the publishers,

LUTHER TUCKER & SON,
ALBANY, N. Y.

STRAWBERRIES! STRAWBERRIES!!

As the season for planting out beds of Strawberries again returns, one naturally asks himself the question, what variety shall I plant? Our answer in all cases is, "Wilson's Albany." Price of plants per 100, \$1; per 1000, \$8. A liberal discount to the trade. Packing, for which no charge is made, guaranteed extra. Send your orders for the same to the Albany Nursery of JOHN WILSON,
July 12—w12.

PREMIUM STRAWBERRIES.
Wm. R. Prince & Co., Flushing, N. Y.,

Will supply 250,000 Strawberries, comprising 160 varieties, this collection far surpassing any other in this country or in Europe, and 75 of the New Varieties are in no other Nursery. Prince's Scarlet Magnate, the heaviest of all, and Hooker, \$1 per 100, \$7.50 per 1000. Wilson & Hovey \$1 per 100, \$6 per 1000. Jenny Lind, Coppock's No. 1, Imperial Scarlet, Victoria, Triumph de Gaud, Myatt's Eliza, \$1.50 per 100. Cutter's Seedling, Chilian Eclipse, Globosa Scarlet, Boyden's Mammoth, Voorhis Queen, Le Baron, Jessie Read, Diadem and Bartlett, \$2 per 100. Burr's Pine, Early Scarlet, Hudson, Bartlett, Longworth's Prolific, McAvoy's Superior and No. 1, \$1 per 100 and \$5 to \$7 per 100. Austin's Shaker, \$3 per dozen. Downing's Prolific and Fillmore, \$1 per dozen, and 130 other varieties at \$1 to \$2 per 100, and \$5 to \$10 per 1000. A Descriptive Priced Catalogue sent to applicants who enclose stamps. Plants will also be furnished by the dozen.

Sept. 6—w&m12.

**I. T. GRANT & CO., PATENT
GRAIN CRADLE.**

They are so improved as to be taken down and packed in boxes for transportation. One dozen can be packed in a box of about six cubic feet. We also make the Grapevine Cradle. All of the above are made of the best material and workmanship. For Price List, address

I. T. GRANT & CO.,
Junction, Rensselaer Co., N. Y.

A LBANY TILE WORKS,
CORNER CLINTON AVENUE AND KNOX STREET, ALBANY, N. Y.

The Subscribers, being the most extensive manufacturers of DRAINING TILE in the United States, have on hand, in large or small quantities, for Land Draining, ROUND, SOLE and HORSE-SHOE TILE, warranted superior to any made in this country, hard-burned, and over one foot in length. Orders solicited. Price List sent on application.

C. & W. McCAMMON,
Albany, N. Y.

**I. T. GRANT'S PATENT DOUBLE BLAST
FAN MILLS.**

They will chaff and screen wheat in passing through the mill once, in the most perfect manner, and all kinds of grain and seed. Waranted the very best in use.

Patent Rights for sale of all the Western States.

Address I. T. GRANT & CO.,
Junction, Rensselaer Co., N. Y.

**HICKOK'S PATENT PORTABLE
KEYSTONE CIDER AND WINE MILL.**



This admirable machine is now ready for the fruit harvest of 1860. It is if possible made better than ever before, and well worthy the attention of all farmers wanting such machines.

It has no superior in the market, and is the only mill that will properly grind Grapes. Price \$40. For sale by all respectable dealers. Address the manufacturer, W. O. HICKOK, Eagle Works,

Harrisburgh, Pa.

**PLUM TREES! PLUM TREES!!
400,000.**

Particular attention is invited to our Plum Trees, of which we have a full supply, comprising the leading and most desirable varieties.

Per 100. Per 1000.

Plum Trees, 1 year budded, 3 to 4 feet.....	\$20	\$190
" " 2 " " 4 to 6 feet.....	25	225
" " 3 " " 6 to 8 feet.....	30	260

40,000 Pear Trees, standards, one year budded, 3 to 4 feet, \$15 per 100, \$125 per 1000. Pear trees must be removed this fall. Address

C. REAGLES & SON,

Schenectady, N. Y.

Aug. 16—w8t.

FRESH AND GENUINE GARDEN SEEDS,

in every variety, grown with the greatest care, and warranted true to name. The trade supplied in any quantity, either in small packets for retailing or in bulk.

PASCHALL MORRIS,

Seed Warehouse, 7th and Market, Philadelphia.

Branch House, MORTON MORRIS,

Osterman's Building, Strand, Galveston, Texas.

Aug. 23—w13t.

Contents of this Number.

THE FARM.

The Muck Mines of the Farm.....	297
Top-dressing Meadows and Pastures.....	298
Barometers for Farmers.....	298
How to Relieve Domestic Toils.....	299
EDITORIAL NOTES ABROAD—No. 35.....	300
Visit to an English Dairy Farmer.....	300
The Harvest Returns Abroad.....	304
Superphosphate of Lime, by A. R. A.....	307
The Crops of Great Britain.....	308
How to Deepen the Soil.....	308
How to Cure Sown Corn Fodder.....	310
A Day at the Springfield Horse Show.....	314
Cutting up Corn, by J. W. LEQUEAR.....	317
Curing Corn Fodder, by J. L. R.....	317
How the Shakers Unload Hay, by LEVI BARTLETT.....	318
Planting Potatoes in the Fall, by C.....	318
Inquiries and Answers.....	319
Provincial Ag. Exhibition of Upper Canada.....	320
Harvesting Clover Seed.....	322
How to Exterminate Iron Weed.....	322
Notes for the Month.....	323
Albany County Fair.....	325

THE GRAZIER AND BREEDER.

Sock Kept on Sixty Acres.....	300
How to Destroy Vermin on Stock, by C. T. ALVORD.....	306
Improvement in Feeding Boxes for Sheep, by J. L. B.....	309
Sheep-Growing in Texas, by S. B. BUCKLEY.....	311
Cure for Hove or Hoven in Cattle, by JAMES GOWEN.....	311
Good Sheep in Canada, by THOMAS GUY.....	311
Keep Sheep in Good Condition, by JONA. TALCOTT.....	313
Horse Show at Springfield, Mass.....	314
Buckwheat for Fattening Stock, by JOHN JOHNSTON.....	316
Buckwheat as Food for Fattening Hogs, by J. TALCOTT.....	316
Stable Floors—Tying up Cattle, by LEVI BARTLETT.....	318

HORTICULTURAL DEPARTMENT.

Remedy for Aphides on Young Trees.....	298
About Pruning Orchards.....	299
Mountain Seedling Gooseberry, by E. Y. TEAS.....	304
The Hallenbeck Plum, by CHARLES DOWNING.....	309
The Apple-Borer, by JOHN R. BLAIR.....	309
The Elder for Striped Bugs, by MARIA BROWN.....	309
Mahaleb and other Stocks for Cherries.....	310
Gages and Plums, and Pippins and Apples.....	310
Fruit in the Shade—Balling Trees.....	310
The Bezi Mai Pear.....	312
Pike's Defiance Cucumber.....	313
Culture of the Strawberry, by A. S. MOSS.....	322
The American Pomological Society,	325

THE DAIRY DEPARTMENT.

An Account of Mr. Horsfall's Dairy Farming.....	300
Remedy for Garget or Bloody Milk, by RUSTIC.....	306
A Hint for Dairymen,	307
A Good Milker, by L. SWEETSER,	316

RURAL ARCHITECTURE.

Design for a Laborer's Cottage,	304
---------------------------------------	-----

DOMESTIC ECONOMY.

Dry Yeast, Bread and Biscuit, by J. W. L.....	305
Recipes for Elderberry Wine.....	305
An Excellent Cake.....	307
How to Make a Chicken Pie.....	307
Directions for Fining Wine, by E.....	309
Remedies for Bed Bugs.....	310
Saltpetre for Throat Complaints, &c., by W. M. BEAUCHAMP.....	316
My Experience in Cider Making, by W. M. BEAUCHAMP.....	317
How to Keep Pumpkins, by A SUBSCRIBER.....	318
Bread from Unbolted Flour, by H.....	318
Recipes for Pickling Plums, Cucumbers and Tomatoes, by S. M. H.	322

THE POULTRY YARD.

Raising Turkeys, by MARIA BROWN,	318
Fattening Poultry, by S.....	316

ILLUSTRATIONS.

Laborer's Cottage.....	304
Mountain Seedling Gooseberry 304 Pike's Defiance Cucumber,	312
Shocking Wheat,.....	313

T O L E T.—A FARM in the town of Moreau, Saratoga county, of about 500 acres, 200 of which are in wood—with a large and convenient house and all necessary outbuildings, including four barns. It is situated on the bank of the Hudson river, within one mile of the village of Fort Edward, and five of the village of Glens Falls. The station house of the Saratoga and Whitehall railroad is on the premises—thus affording every facility for market. To a person of sufficient means to stock the farm, and who will have some pride in keeping it in good order, favorable terms will be given. Address the subscriber at Moreau Station. **W. H. WARREN.**
Sept. 26—*weow6tm3t*.

I N V E N T I O N — T R I U M P H A N T !**The Cost of Draining Reduced One-Half**

BY THE USE OF

CALLANAN'S DITCH DIGGER AND SUBSOILER.

PRICE, with wheels, axle-tree and reversible tongues, \$30. Satisfaction warranted. Also SHOVELS, made expressly to be used in connection with the Ditcher—just the thing—Price \$1.50.
Address **D. CALLANAN,**
Sept. 27—*w* Callanan's Corners, Albany Co., N. Y.

**F I R S T C L A S S W H I T E - F A C E D
B L A C K S P A N I S H F O W L S**

For Sale, six months old, at \$2 each. Box and feed free.
Sept. 27—*weow5t* **E. C. ARMSTRONG,** Florida, Orange Co., N. Y.

F I F T Y T H O U S A N D A P P L E T R E E S
ready for orchard planting.
10,000 New Rochelle Blackberry, Gooseberries, Currants, Raspberries, Grapes—new and old.
5,000 Linneus and Victoria Rhubarb. Downing's Ever-bearing Mulberry.

A large collection of Strawberries, including "WIZARD OF THE NORTH," believed to be the most magnificent berry ever raised. Specimens have measured nine inches around, and of good quality. Imported by E. Y. TEAS, Richmond, and for sale in America only by him and myself.
100,000 Evergreens, American and European, mostly small and suitable for nurseries.

Ornamental Trees, Shrubs, Vines, Roses, Hardy and Green-house Plants, Bulbs, &c., WHOLESALE AND RETAIL at lowest rates.

Priced Lists on application. **JOHN C. TEAS.**

Oct. 4—*w2tm1t*. **Raysville, Henry Co., Ind.**

1,000 A C R E S F O R S A L E. It is divided into THREE FARMS, about 350 acres being under cultivation. The timber is very fine—Oak and Hickory. It is located in Kent county, Maryland, five miles from navigation and eight miles from the railroad station at Smyrna, Delaware. I will close out the whole tract at \$20 per acre. Apply to

Sept. 27—*w8t.* **H. W. ROGERS,** Baltimore, Md.

T R U E D E L A W A R E G R A P E V I N E S.—One year old, strong, \$1; two years, \$1.50 to \$2. Extra large layers with bearing wood, \$2 to \$3. Smaller layers, \$1 to \$1.50. Also, very fine Logan Vines, \$1 to \$2. All other good varieties, new and old, at lowest rates. Send for a circular.

Sept. 27—*weow1t.* **GEORGE W. CAMPBELL,** Delaware, Ohio.

W M. R E I D, N U R S E R Y M A N,
E l i z a b e t h t o w n, N. J.

Offers for sale this autumn a general assortment of all the various kinds of hardy

Fruit and Ornamental Trees, Shrubs, &c.

W. R. begs leave to state, for the information of his customers, and others who may wish to purchase, that from the favorable season we have had here, Fruit Trees have generally made good growth, and with very few exceptions are vigorous and thrifty; all the leading varieties and those suitable for orchard planting are cultivated extensively, as well as those of late introduction and will be furnished, when a quantity is taken, at very reasonable prices.

The Ornamental Department is also well grown, and contains everything desirable for lawn or park planting; also a large stock of Trees and Shrubs for cemeteries and public grounds, which can be furnished in quantities to suit purchasers.

For a general list of Fruits and Ornamental Trees, see the general Catalogues which will be forwarded on application.

Trees securely packed and forwarded to all parts of the United States.

Orders by mail or left at the Nursery will receive prompt attention.

Sept. 27—*w2t.*

D U T C H B U L B O U S R O O T S.
B. K. B L I S S,

Seedsman and Florist, Springfield, Mass.,

Would respectfully announce the arrival of Annual Importation of the above, which have been selected with great care from several of the leading establishments in Holland, and can be confidently recommended to those interested in their culture.

The collection comprises all the most desirable varieties of

HYACINTHS, Double and Single.

TULIPS, Double and Single, Early and Late.

CROCUS, all of the old, and many new varieties.

CROWN IMPERIALS.

POLYANTHUS NARCISSUS.

DOUBLE ROMAN AND PAPER WHITE NARCISSUS.

TRITONIAS.

JONQUILS, Double and Single.

JAPAN LILIES.

RANUNCULUS.

ANEMONES.

ARUM.

SNOW-DROPS.

IRIS.

GRAPE AND MUSK HYACINTHS, etc.

A descriptive priced Catalogue of which, with full directions for culture, will be forwarded to all applicants on receipt of a three cent postage stamp.

COLLECTIONS OF BULBOUS ROOTS.

For the convenience of those who desire a fine collection, but are unacquainted with the varieties, he has put them up in collections, as follows, with full directions for culture, and carefully packed for transportation to any part of the country.

Collection No. 1—Price \$10—Contains

20 DOUBLE AND SINGLE HYACINTHS, (all named flowers,) suitable for Culture in Glasses or Pots.

20 DOUBLE AND SINGLE HYACINTHS, (all named flowers,) for the open Border.

20 EARLY DOUBLE AND SINGLE TULIPS, for Pot Culture or the open Border.

20 LATE TULIPS, for the open Border.

6 POLYANTHUS NARCISSUS, for Pot Culture or Border.

6 DOUBLE ROMAN NARCISSUS, very fragrant.

2 CROWN IMPERIALS.

12 DOUBLE JONQUILS.

100 CROCUS, finest mixed.

2 DIELYTRA SPECTABILIS, large roots.

4 PEONIES, all distinct varieties.

Collection No. 2—Price \$5—Contains

ONE HALF OF EACH of the above varieties, with the exception of the Peonies.

All orders from unknown correspondents must be accompanied with the cash, or a satisfactory reference. Address **B. K. BLISS,** Springfield, Mass.

Sept. 27—*w4t.*

B E R K S H I R E S W I N E,

of unmixed breed, from different litters, at low prices, for sale.

Sept. 20—*w&mtf.* **W. M. J. PETTEE,** Lakeville, Conn.